S. HRG. 99-237

ARMY'S LIGHT DIVISION

HEARING

BEFORE THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

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(99th Congress, 1st Session)

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ARMY'S LIGHT DIVISION

THURSDAY, JUNE 20, 1985

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

The committee met, in executive session, pursuant to notice, at 9:30 a.m., in room SR-222, Russell Senate Office Building, Senator Barry Goldwater (chairman) presiding.

Members present: Senators Goldwater, Thurmond, Warner, Humphrey, Denton, Gramm, Nunn, Dixon, and Glenn.

Staff present: James F. McGovern, staff director and chief counsel; Arnold L. Punaro, staff director for the minority; Alan R. Yuspeh, general counsel; Christine C. Dauth, chief clerk; Robert E. Bayer, Robert G. Bell, John J. Hamre, Russel E. Milnes and Carl M. Smith, professional staff members; Colleen M. Getz, research assistant; Inga B. Schoonover, staff assistant.

Also present: Gerald J. Smith, assistant to Senator Goldwater; Romie L. Brownlee, assistant to Senator Warner; Henry D. Sokolski and Karl H. Stegenga, assistants to Senator Quayle; John L. Roddy, assistant to Senator East; Allan W. Cameron, assistant to Senator Denton; Alan Ptak, assistant to Senator Gramm; William S. Lind, assistant to Senator Hart; Charles C. Smith, assistant to Senator Dixon; and Phillip P. Upschulte, assistant to Senator Glenn.

OPENING STATEMENT BY SENATOR BARRY GOLDWATER, CHAIRMAN

Chairman GOLDWATER. The meeting will come to order.

The committee meets this morning to receive testimony on the Army's plan to establish new light infantry divisions.

Under the Army's proposal, a total of five light infantry divisions will be established, four active and one National Guard division. Three existing infantry divisions will be converted, and two new light infantry divisions will be created.

Recognizing the conditions which led the Army to propose this modification in force structure—namely, limitations in our strategic lift capacity and the need for forces with greater maneuverability—the committee has supported the Army's initiative.

The purpose of our hearing today is to receive an update on the Army's plan while giving members an opportunity to address key issues relating to the new divisions. These issues include the operational concept for the divisions, manning and equipping the divisions, their operational limitations, their requirements for any spe-

cial weapons, and their potential impact on the Army's procurement and operations budgets.

Here with us this morning to brief the committee and discuss these issues are Hon. John O. Marsh, Jr., Secretary of the Army; Gen. John A. Wickham, Jr., Chief of Staff, U.S. Army; and Lt. Gen. Carl E. Vuono, Deputy Chief of Staff for Operations, U.S. Army.

Senator Dixon, do you have a statement?

Senator DIXON. Mr. Chairman, I look forward to today's hearing with Secretary Marsh and Generals Wickham and Vuono on the Army's light division.

I have reservations about the Army's concept of the light division as a mobile and rapid deployment force. If it is too light, how long can it be sustained in combat situations?

How long must it fight alone before we are able to reinforce it?

I think the concept of a rapidly deployable force is needed and I hope today's hearings can answer some of my questions.

Thank you, Mr. Chairman.

Chairman GOLDWATER. Gentlemen, it is a pleasure to have you here with us this morning to discuss this very important subject and we look forward to your presentation. If you have prepared texts, you can submit those.

STATEMENT OF HON. JOHN O. MARSH, JR., SECRETARY OF THE ARMY

Secretary MARSH. Thank you very much, Mr. Chairman.

We are pleased to be here. I will open my comments by first thanking you personally and members of the committee for the help and support they have given us in this new initiative.

You have mentioned the Cheif of Staff of the Army and General Vuono. I will point out to you General Vuono has just come aboard as Deputy Chief of Staff for Operations and Plans of the U.S. Army. He brings a very exemplary career to his post.

Accompanying him and General Wickham, who will follow me, is General Harrison, who is commander of the 7th Infantry Division, that is in the process of conversion to a light division. He, too, has a very distinguished career and commands some of the soldiers you saw recently, the Buffaloes at Fort Benning. He can give you a precise report as to where we are. We have General Schroeder with us who is Deputy Assistant Chief of the Corps of Engineers. He can address questions relating to installations and logistics. We have General Greenway who is in the force planning element in our Office of Deputy Chief of Staff for Operations and Plans of the Army staff.

Our new director for congressional relations whom you have had an opportunity to meet in that capacity is General Kenyon. He is a graduate of the Military Academy. He has been in that post about a week.

We also will have joining us shortly the Assistant Secretary of the Army for Installations, Mr. Shannon who this committee confirmed not long ago. He is ably qualified for that post.

Secretary MARSH. If I might, Senator, go to these charts. I will say to you first we appreciate the opportunity to do this in a closed hearing. Some of these items will be classified. I will say to you

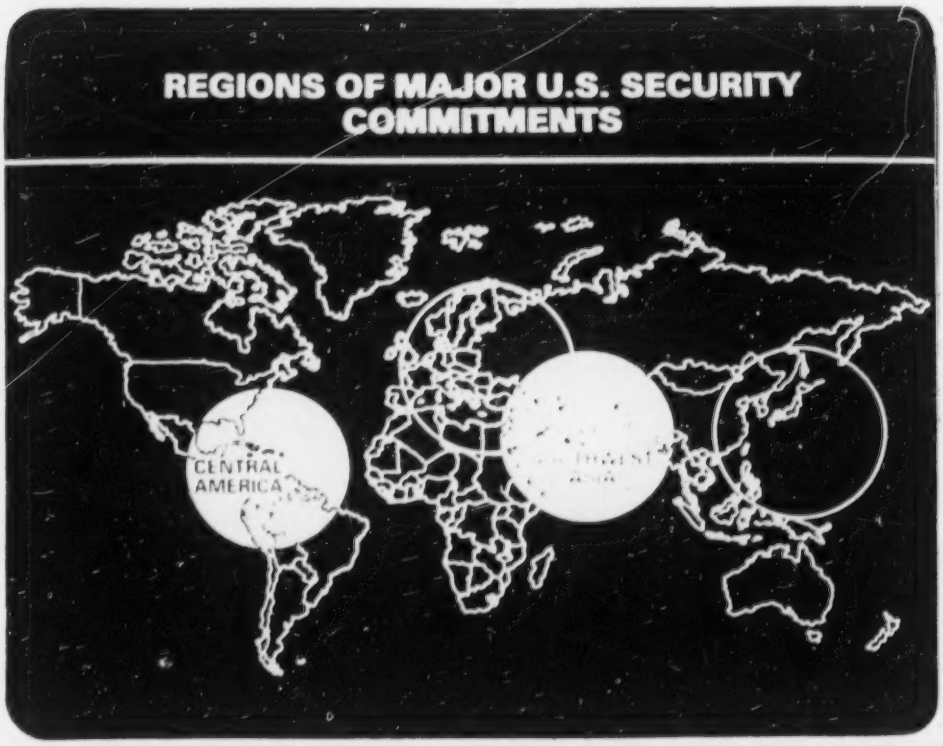
that many of these charts in an open hearing would not be classified, but taken in the context of how we would seek to deploy the light divisions, they are somewhat sensitive, and as you will see, there is particular sensitivity in some areas of the world.

RATIONALE FOR LIGHT DIVISIONS

I would like to run through some of these charts because they depict the underlying rationale and underpinnings that drive the light division policy that was inspired by the Defense Guidance and National Command Authority. The Chief of Staff has been a great proponent of this concept.

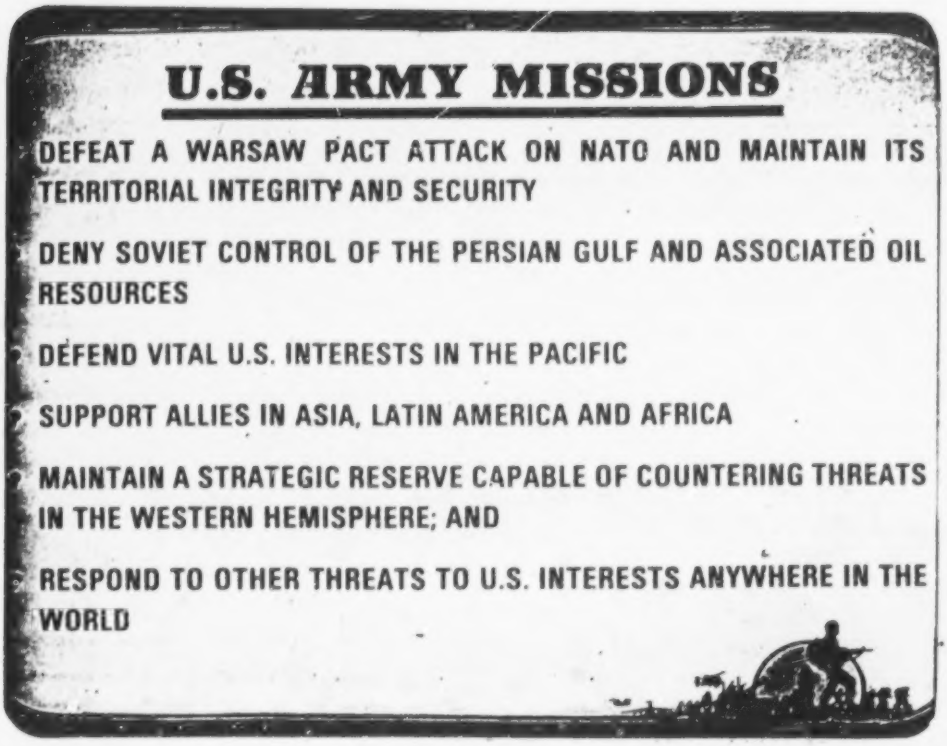
The world is dangerous, changing, and complex. That is a major factor, of course.

I will say to you, sir, that, as you are well aware, there have been two historic areas of U.S. foreign and defense policy focus since World War II, Western Europe and East Asia, which is today our largest trading partner.



In the last decade there have been added two additional rings. The Southwest Asia ring was added in the late seventies under President Carter. It was aimed at the problems associated with the fall of the Shah, difficulties in Iran, destabilization of the Persian Gulf, and threat to Western petroleum sources. The fourth ring of significant interest is the Central American ring added in the 1980's by President Reagan. As you know, it begins to equate more nearly the defense of Central America with that of the Continen-

tial United States, a key area for the U.S. foreign and defense policy.


U.S. ARMY MISSIONS
DEFEAT A WARSAW PACT ATTACK ON NATO AND MAINTAIN ITS TERRITORIAL INTEGRITY AND SECURITY
DENY SOVIET CONTROL OF THE PERSIAN GULF AND ASSOCIATED OIL RESOURCES
DEFEND VITAL U.S. INTERESTS IN THE PACIFIC
SUPPORT ALLIES IN ASIA, LATIN AMERICA AND AFRICA
MAINTAIN A STRATEGIC RESERVE CAPABLE OF COUNTERING THREATS IN THE WESTERN HEMISPHERE; AND
RESPOND TO OTHER THREATS TO U.S. INTERESTS ANYWHERE IN THE WORLD

ARMY MISSIONS

If we look at the world today from the standpoint of employment and deployment of the light divisions, there are six missions for the U.S. Army. They are assigned to us. We did not generate those missions. They come from the National Command Authority.

One, defeat a Warsaw Pact attack on NATO and maintain the integrity of NATO.

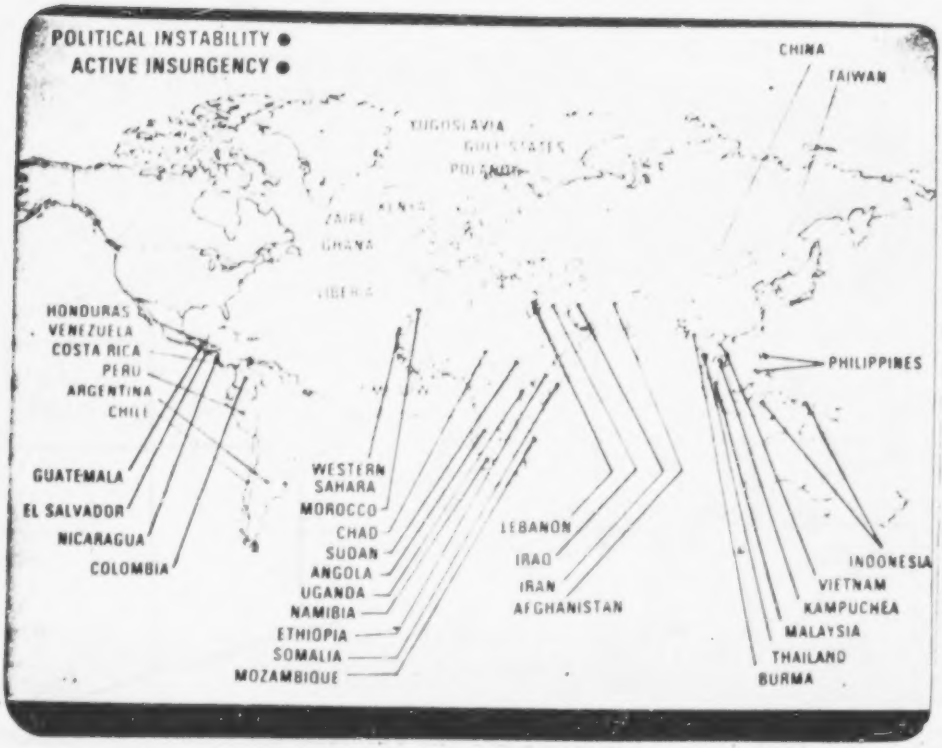
Two, deny Soviet control of the Persian Gulf and associated resources.

Three, defend U.S. interests in the Pacific.

Four, support our allies in Asia, Africa, and Latin America.

Five, maintain a strategic reserve force in the Continental United States capable of defense of the Western Hemisphere.

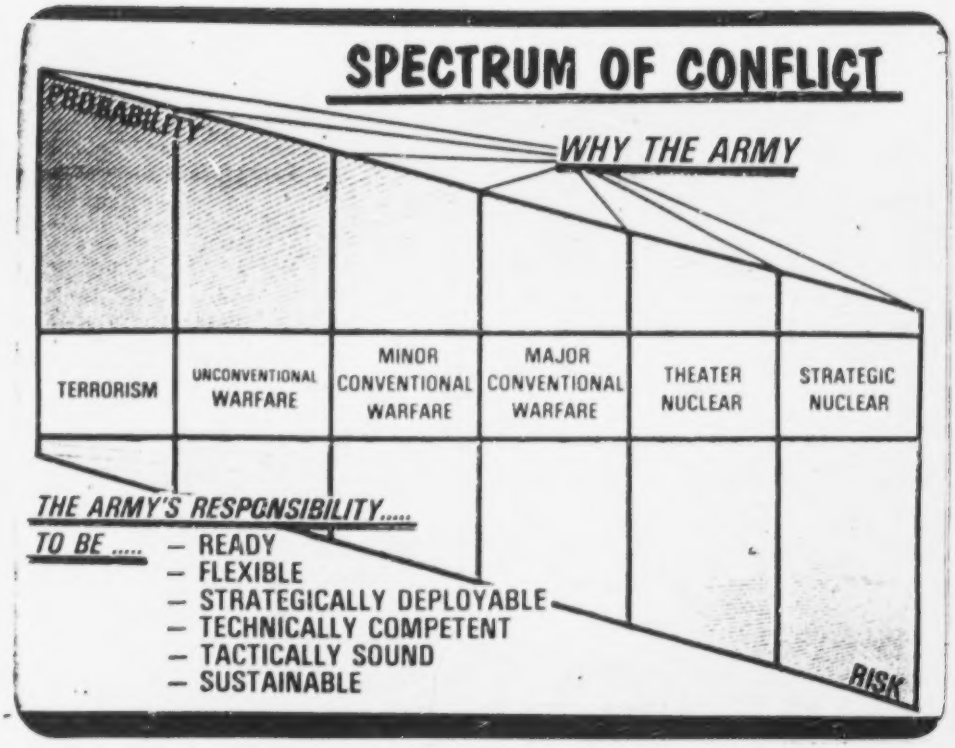
Six, having done those five things, be able to respond to other threats to U.S. interests elsewhere in the world.



FLASH POINTS

You have seen this chart. I show it for emphasis. It was prepared by our Army intelligence. It shows in red those areas of the world—names of the countries change—in which there are currently certain degrees of warfare, insurgencies, low-grade conflict or, in the case of Iran and Iraq, full-scale conventional war.

In blue we show areas that are politically unstable that can be destabilized. Now, it is the destabilization, insurgency, and low-intensity conflicts that begin to impact on U.S. foreign and defense policy and pose questions for the Army in these various areas we talk about.



You have seen this chart many times. It shows a spectrum of conflict. You can divide it here in the center, a conventional band. To the left we move into the low-intensity area. There is great emphasis on special operations forces now in the defense guidance. In the Army this concentrates on the Special Forces, Rangers, psychological warfare, and civil affairs units. It is in this area we are beginning to talk in terms of that light division. We hope to do three things sir. By developing the conventional capabilities of the Army, we give preference to those operations that raise the nuclear threshold. In order to be able to address these areas of low-intensity conflict we determined the ability to deploy is an element of deterrence. The fact we can deploy does deter.

Finally, through a strong conventional force, we want to be able to deter war on the conventional battlefield.

If you look at this slide, it relates to areas where you can have a possible confrontation between super powers. The Falklands was not a super power confrontation even though there are still some problems between Argentina and Great Britain. There exists the possibility of war between Ecuador and Peru. There is a very significant Soviet presence, as you know, in Peru. There are 150 Soviet advisers in Peru. [Deleted.] The greatest penetration of Soviet interests is in the Peruvian Air Force and in the Peruvian Army.

Then there are the problems that you are familiar with in Central America. These are regional as opposed to being one country problems. If you look here in the Africa-Northern Sahara, you have a continuing border tension between Morocco and Algeria. Furthermore, there is an Algerian supported insurgency movement, the Polisario guerrillas, which is a greater threat than people realize. You are dealing with a country of over 20 million people in Morocco. Very sophisticated equipment is now available to the Polisario movement. [Deleted.]

As we come down into the southern portions of Africa, you have the conflicts in Angola and you also have conflicts in Ethiopia and danger along the border of Somalia. That is a continuous problem there. There are better than 40,000 Cuban combat troops in Africa. Most of them are in Angola, but also you will find Cubans in Mozambique. There is a developing insurgency in Mozambique. The Marxist-Leninist regime in Mozambique is having problems.

We look at Libya and Chad, we know, because Kaddafi has told us he has a pan-Africa policy. He envisions a thrust from Libya into Chad and exploitation of divisions in the Sudan, thereby being able to intimidate Egypt.

[Deleted.] Libya did not withdraw from Chad as they represented to the French they would.

Let us take a closer look at Ethiopia. Off the coast of Ethiopia the Soviets have entered into an agreement with the Ethiopians for access to naval facilities. [Deleted.]

We know that the situation in Central and Western Europe continues to be troublesome. We focus on the solidarity movement in Poland and the recent murder of Major Nicholson in East Germany to show the Soviets still view that as a very volatile area. This is reflected in the killing of an American officer who was where he had a right to be, doing something which the international agreement gave him a right to do.

The war between Iran and Iraq continues to drift on. Recent events continue to emphasize how volatile and difficult the situation is to resolve.

About 118,000 Soviet troops are in Afghanistan and Soviet offensive operations are increasing. In a rather significant setback, the Soviets recently lost some aircraft due to the Afghan freedom fighters.

There are continued problems in Southeast Asia with Kampuchea and problems involving China in that area of the world. Thirty percent of the Soviet army is along the China border.

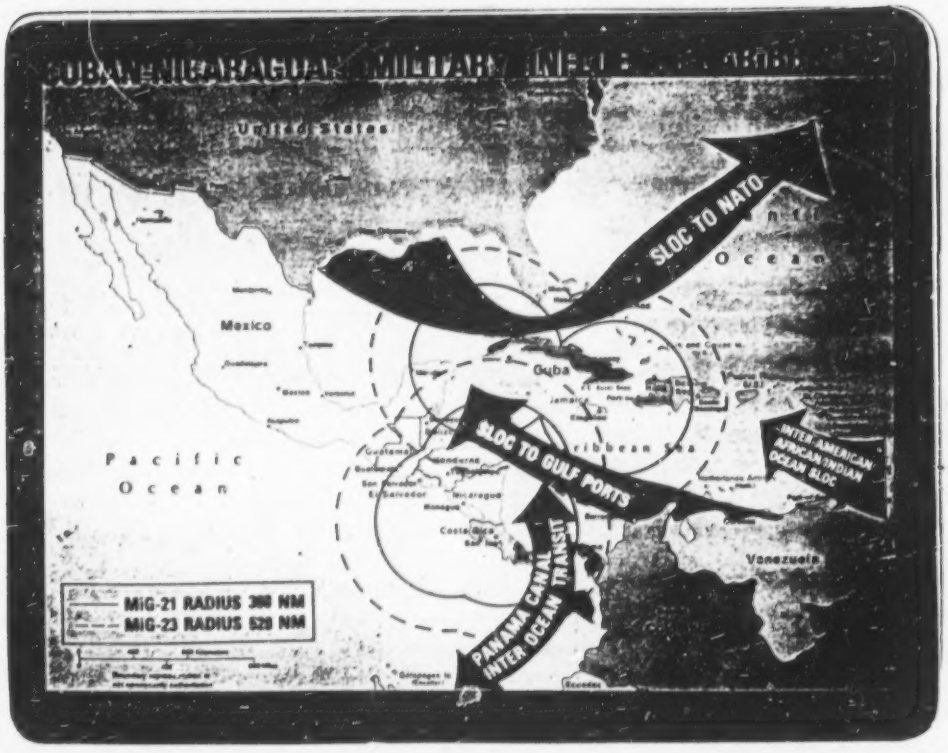
Between the two Koreas there is an extremely sensitive situation. A lot of that focuses on the Asian games that are scheduled to be conducted in South Korea in 1986, followed by the Olympics in 1988. This is an area of considerable concern in North Korea because of the status it gives South Korea.

Now, if you will take off those flashpoints, those are areas of potential conflict where you would want to move forces very quickly, such as light infantry units.

CHOKE POINTS

If you begin to look at the world chokepoints in terms of geopolitics, there are 12 to 15 major international chokepoints.

Two are in our hemisphere where the control of adjacent land masses is very important, one the Panama Canal and the second the Straits of Florida. If you look at the Straits of Florida, from the standpoint of the sea lanes and sea lines of communication, you see in the Caribbean Sea, including the Gulf of Mexico, an area larger than the Mediterranean. The Straits of Florida are much more important to us than the Mediterranean Sea and is an area of ingress and egress of the Panama Canal and the Caribbean Sea from Africa and Western Europe. About 50 percent of U.S. commerce moves in and out of gulf ports that are adjacent to the Caribbean region. In the event of a general conflict in Western Europe, well over 57 percent of our material support would move through the sea lanes of communication.



They are important when you look at them in terms of fighter coverage. There are 40 Mig-23's in Cuba, and there are about 162 Mig-21's, which are less sophisticated than the Mig-23. The dotted line shows you the air coverage of the Mig-23, the hard line shows you the air coverage of the Mig-21 based in Cuba. If they go into Nicaragua, you have these types of coverages of these very critical areas.

To give you some idea how critical those areas can be, in World War II from December 7, 1941, until July 31, 1942, the Germans kept an average daily rate of three submarines on station in the Atlantic and Caribbean. In those roughly 7 months they sank 322 merchant ships throughout the Atlantic and Caribbean.

Today we know there are three Foxtrot submarines in Cuba. They are very capable diesel submarines. This is one of the reasons that drives us to use airlift for fast movement of personnel to various areas of the world where they can draw equipment.

Senator WARNER. What were those dates again?

Secretary MARSH. December 7, 1941.

Senator WARNER. To July 1942?

Secretary MARSH. To July 31, 1942, they sank 322 ships with an average of three submarines on station.

Senator DIXON. You mean to tell me they sank that many ships right off our coast?

Secretary MARSH. Yes. You could see them sinking from the coast of Miami. You could see them burning on the horizon.

General WICKHAM. Remember, some Germans came ashore.

Senator DIXON. That is amazing.

Secretary MARSH. This shows you the importance of this chokepoint and the need to have security of the Caribbean Basin and the littoral countries from the standpoint of U.S. commerce.

I am not going to emphasize the Greenland-Iceland-United Kingdom gap or the Danish Straits. There are four Soviet fleets, the northern fleet in Murmansk, one in the Baltic, the Pacific fleet at Vladivostok, and one on the Black Sea.

You have to go through chokepoints in the Turkish Straits, Suez Canal, and the Bab El Mandeb Soviet facility at [deleted]. You also find on the peninsula in South Yemen an extensive Soviet presence. The South Yemen port of Aden, which controls the Bab El Mandeb, is a favorite anchorage for the Soviet fleet. These are all Soviet vessels off the coast of South Yemen opposite the Horn of Africa. Yemen is an area of vital concern to us.

Now, I have mentioned these straits here. You have the energy straits of the world in Hormuz, 50 percent of Japanese oil, 20 to 30 percent of Western Europe's oil, 8 to 12 percent of United States oil comes out of these energy straits. The Straits of Malacca grant access from the Indian Ocean to the South China Sea. The Kurile Islands here, which are not Soviet, they are Japanese, were seized by the Soviets in the last week of the war and never returned to Japan. They are of strategic importance.

ECONOMIC RESOURCE DISTRIBUTION

If you want to look at the world in which we live from the standpoint of economic interests, let us look at it this way.

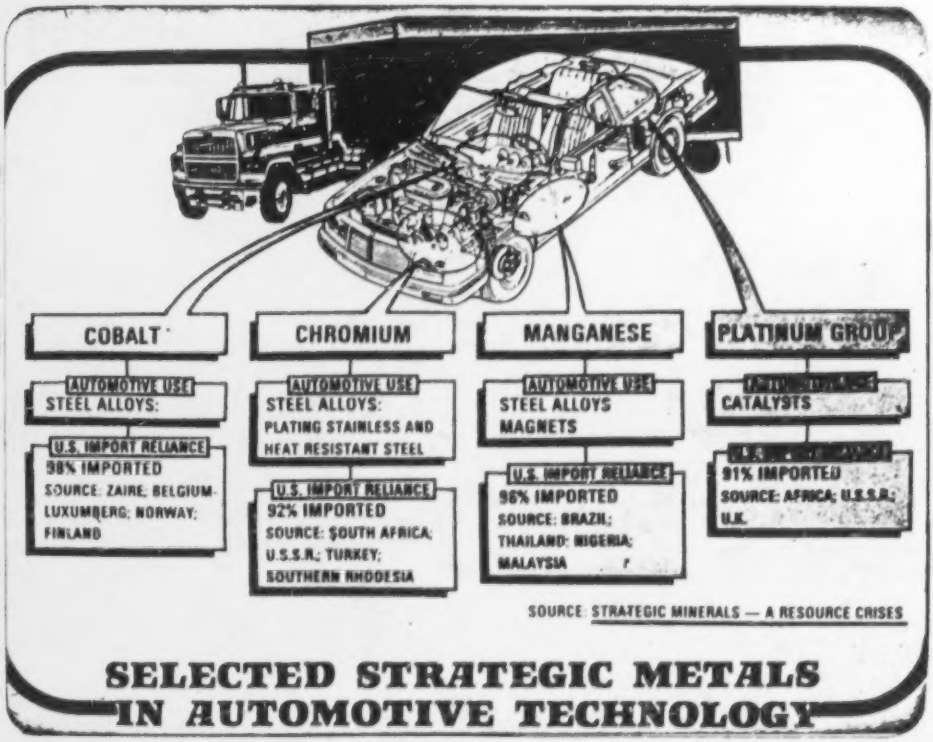
This bar chart shows you from an economic standpoint the allocation of strategic minerals and metals in the world. This is the United States' bar chart of seven strategic minerals and metals without which you cannot have a modern economy. It shows Europe with almost none; Japan with very few, and the Soviet Union almost self-sufficient.

If you look at that in another way, you see these statistics, Senator. The United States is more than 50 percent dependent for 23 of the strategic minerals and metals that we need for our commerce.

The Soviet Union is self-sufficient in 35 of the same.

Let us look at some commodities that are critical to the jet engine. The production and export of the jet engine is a great American success in the markets of the world. Here is a family of strategic metals, light weight and very strong. These are the quantities we import. The least we import as a percentage is tungsten. Only one country, Canada, that can supply a portion of what we need, is contiguous to our own borders. This means we must go beyond our contiguous boundaries to import the rest.

Next, take the automobile, and the four families in that, cobalt, chrome, manganese, and platinum. Here you find their use in the vehicle and here is where they go. These are the countries from which they come.



Let us look at the countries from which they come. They come primarily from four areas of the world that are in the southern hemisphere, and are in the lesser developed countries. They are in Latin America, Africa, and Southwest and Southeast Asia.

Now, if you look at the four policy rings that I mentioned to you earlier that are the principal areas of the U.S. foreign defense interests, notice how they focus on these areas of the world that are so absolutely vital to our national commerce.

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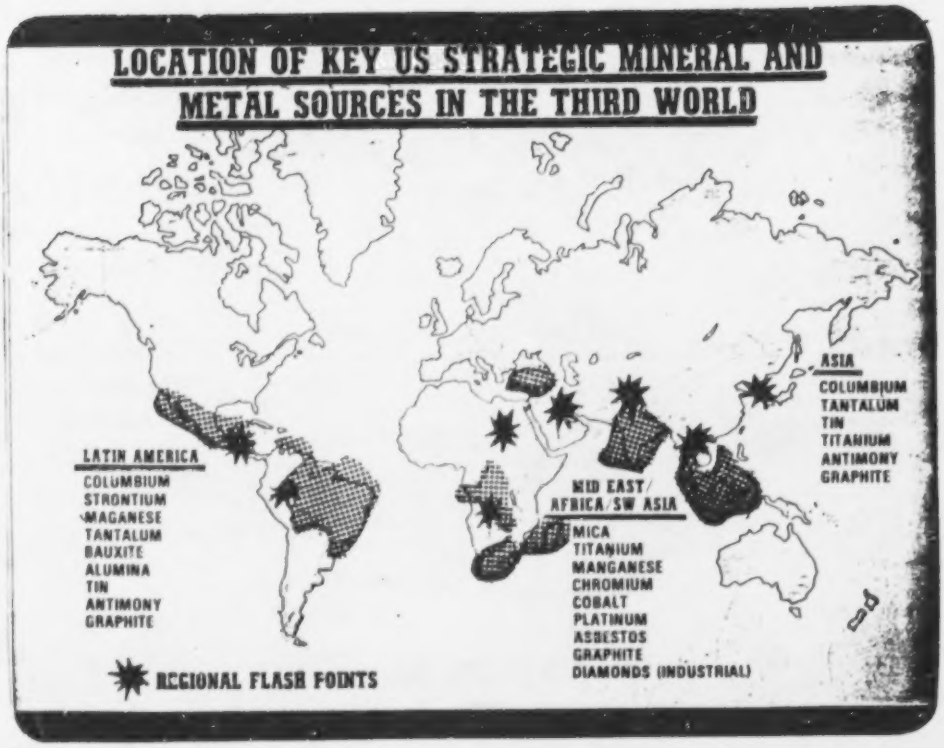
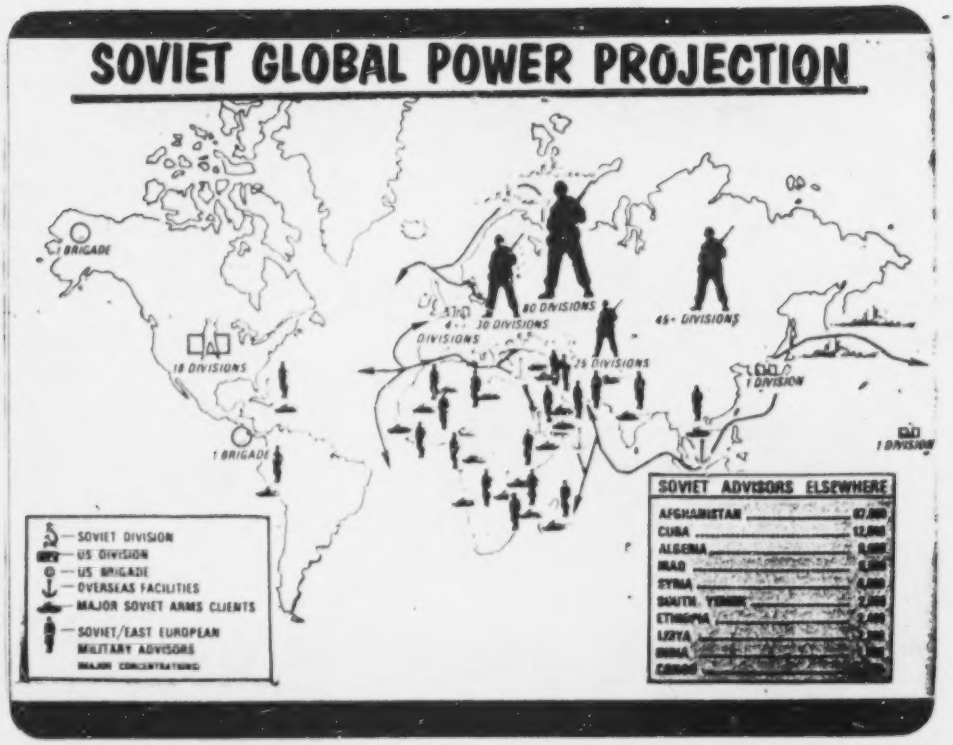


DISTRIBUTION OF SOVIET FORCES

If we take the Soviets, and I am not going to talk to the slide, the size of these figures are representational, you know they have the world's largest Air Force, have developed a Navy for blue water projection power, and the Army's strength has grown to 199 divisions. What is troublesome about that chart is that in the last 10 to 15 years we see more Soviet military personnel stationed beyond the borders of the Soviet Union.

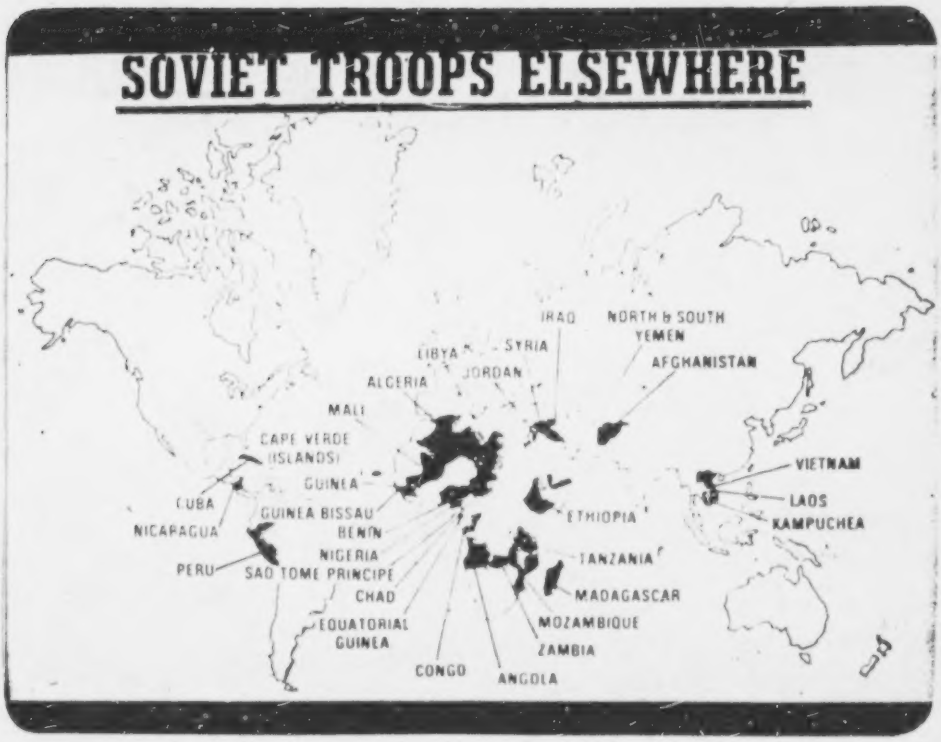


There is one brigade in Cuba. Our intelligence tell us that there are 24,000 Soviet military people in 30 countries of the world following the foreign military sales program of the Soviet Union.

Notice the concentration here on Africa and Mozambique. In the early 1970's Brezhnev is reported to have told a leader of a Third World country that there were two objectives of Soviet policy.

One was to deny the west the mineral resources of Africa.

And, second, to deny the west the petroleum resources of the Middle East.



If you look at the disposition and deployment of Soviet military forces in the world today, it will look something like the next chart.

Senator THURMOND. Will you repeat what Brezhnev said?

Secretary MARSH. Brezhnev is reported as having said, and I can give you the source, to a leader of a Third World country, there were two objectives of Soviet policy.

One was to deny the west the mineral resources of Africa.

And, two, to deny petroleum resources of the Middle East.

Now, the Soviets will seek to deny the statement, but Brezhnev is reported to have said that and I can give you the source.

Senator THURMOND. I wish you would send me that.

[The information follows:]

REPORT OF BREZHNEV QUOTE

In The Real War, President Nixon, in talking about Soviet imperialism in Africa, states that "Brezhnev so covetously referred to [Angola and Mozambique] as the "mineral treasure house of central and southern Africa." (page 28). This view of the importance Secretary Brezhnev attached to mineral and oil resources is corroborated in numerous publications. Dr. Stephen Weigart in "U.S. Strategic Minerals Policy: The Significance of Southern African Sources" states "Brezhnev allegedly claimed that the Soviet Union would achieve world dominion by 1985 after seizing control of Middle Eastern oil supplies and Southern African mineral sources." He states that Brezhnev allegedly made the remarks at a Warsaw Pact meeting or to Somali President Siad Barre.

In the summer 1982 edition of Fletcher Forum, an article appeared by John Orme entitled "Ore Wars: The Problem of U.S. Dependence on Foreign Materials" in which Economist & Foreign Report is cited as the source for the Brezhnev remark to a 1973 Warsaw Pact meeting that "the Soviet Union would achieve world domi-

nation by 1985 by seizing control of Europe's sources of energy and raw materials." In High Treason, Vladimir Sakharov and Umberto Tosi make the point that as national policy, the Soviet Union's key Soviet goal is "to gradually cut off the industrialized capitalist countries from their sources of fuels and raw materials."

Secretary MARSH. President Nixon made that observation.

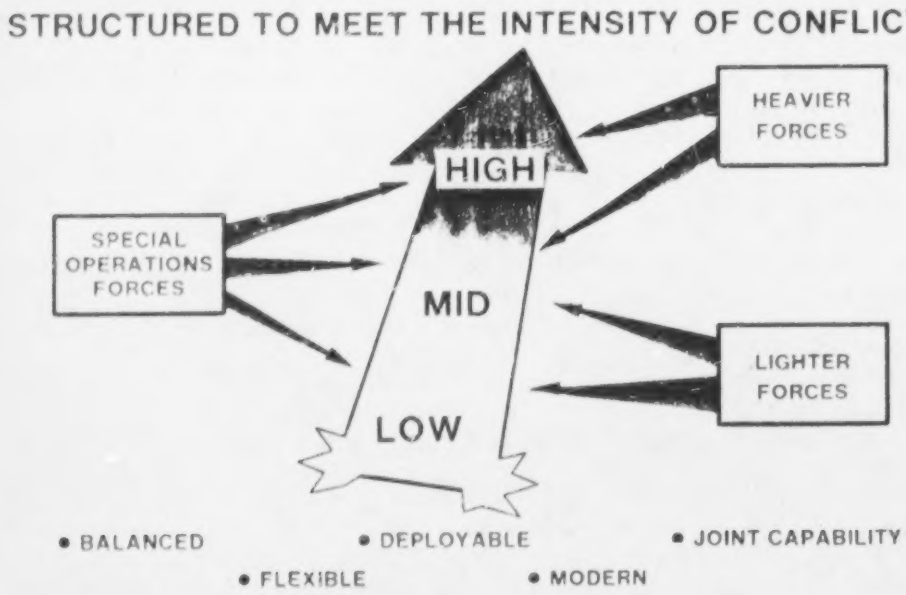
If you look at the areas of Soviet interest and our economic interest, you begin to see the importance of these enormous indications of the presence of these Soviet forces.

Mr. Chairman, those are some of the underlying and driving forces behind the introduction of the light division.

General Wickham will now go through some of the tactical and strategic considerations that relate to that.

STATEMENT OF GEN. JOHN A. WICKHAM, JR., CHIEF OF STAFF, DEPARTMENT OF THE ARMY

General WICKHAM. Mr. Chairman and members of the committee, picking up from what Secretary Marsh has talked on, the geostrategic realities of the world, let me focus more on some of the directions we intend to go with the divisions. These are light force initiatives.

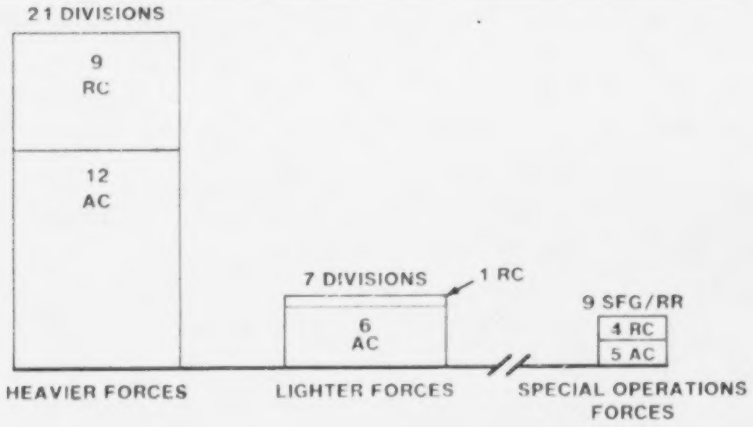


BALANCED FORCE STRUCTURE

Clearly, we are trying to build a more balanced force structure in the Army to deal with the nature of the world we face with the spectrum of conflict from high to mid to low.

The more likely areas, as the Secretary indicated, of hostilities are in the low and mid intensity, although we have to be prepared for the higher, as well.

COMPOSITION OF THE TOTAL ARMY
AS OF FY 1986



How are our forces structured today? You can see by the depth of these standpipes that the bulk of our forces continue to be oriented on the heavier side, the armored divisions, mechanized divisions, with nine reserve components and 12 active divisions. They are robust, and the programs of modernization the Congress has funded continue to make them even more capable. Our pre-positioning of supplies in Europe is oriented toward that heavier side of our Army and the capability to deal with high intensity warfare.

The lighter side of the Army and the special operations forces, the ranger regiment and the special forces groups, deal more with the lower- and mid-intensity capabilities as well as the high, if necessary.

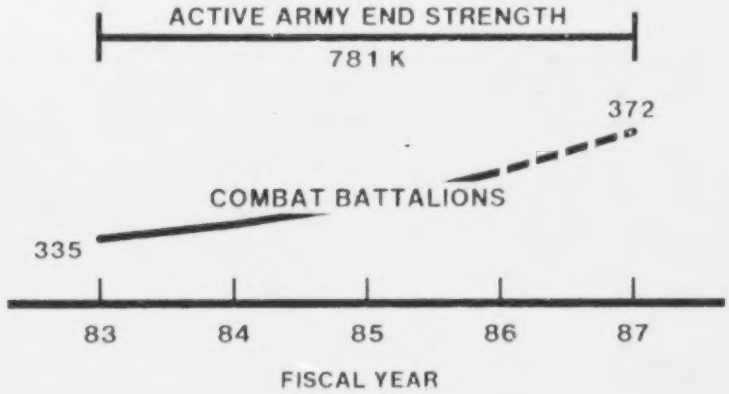
Chairman GOLDWATER. What is the average strength of the heavy division?

General WICKHAM. The heavy divisions are roughly 17,000—they are being structured down to that, they have been higher than that—whereas a light division varies in size and I will come to that.

We already have two light divisions in the sense the 101st and 82nd Airborne exist. We are converting two units, the 7th Division at Ford Ord, and the 25th Division in Hawaii and we are activating three additional small divisions, the 10th already activated at Fort Drum, the 6th to be activated in Alaska, and the 29th Division to be activated in the Army National Guard in fiscal year 1986.

That is the bulk of it. You can see there is a definite focus on the heavy side of the Army. We are dealing here in this lower area.

GROWTH OF COMBAT CAPABILITY



SOURCES OF MANPOWER

How are we doing there? How is the Army creating more combat capability with two additional divisions?

You will see we have held the active Army end strength constant at 781,000. We intend to maintain that, circumstances willing, through the rest of this decade. Yet, we have been able to derive more combat capability out of this constant end strength Army. Some restructuring leads to that, but also we are capitalizing on productivity enhancing technology that improves capabilities. We are also driving down the size of headquarters and that has led to this increased capability. So, we are taking some of the combat battalions that we have begun to organize and put them in the two new divisions. We are giving more fight for the dollar that is appropriated and authorized to us.

Chairman GOLDWATER. What is the average size of the Russian division?

General WICKHAM. The average size of the Russian division is around 11 to 12,000.

Chairman GOLDWATER. How many divisions do they have?

General WICKHAM. 199.

Chairman GOLDWATER. We have 16?

General WICKHAM. We will have 18 with the two new ones, 18 active.

Chairman GOLDWATER. Would you say offhand that their average division is a light division or a heavy division?

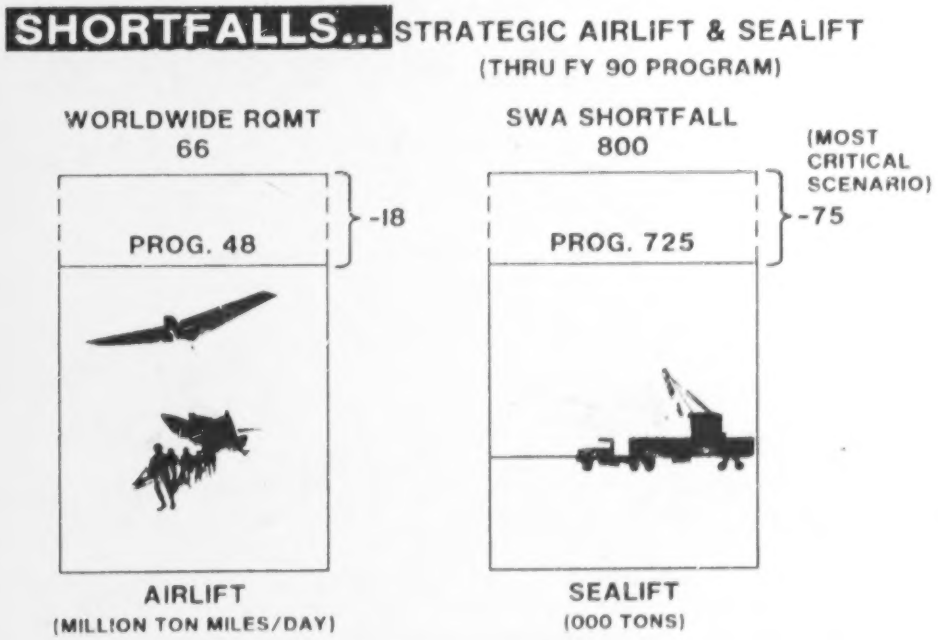
General WICKHAM. Their average division is heavy. By heavy, I am talking in terms of weight, armor, mechanized, and tanks. They do have something on the order of seven airborne divisions.

Chairman GOLDWATER. Thank you.

General WICKHAM. But they have a different problem, as you know so well. They must move over land mass, primarily by rail. They don't have the strategic deployment situation that we do, nor

are they as dependent on foreign areas the way the Secretary indicated we are.

In any event, I want to reassure the committee we are deriving the additional combat capability out of existing resources.



STRATEGIC LIFT REALITIES

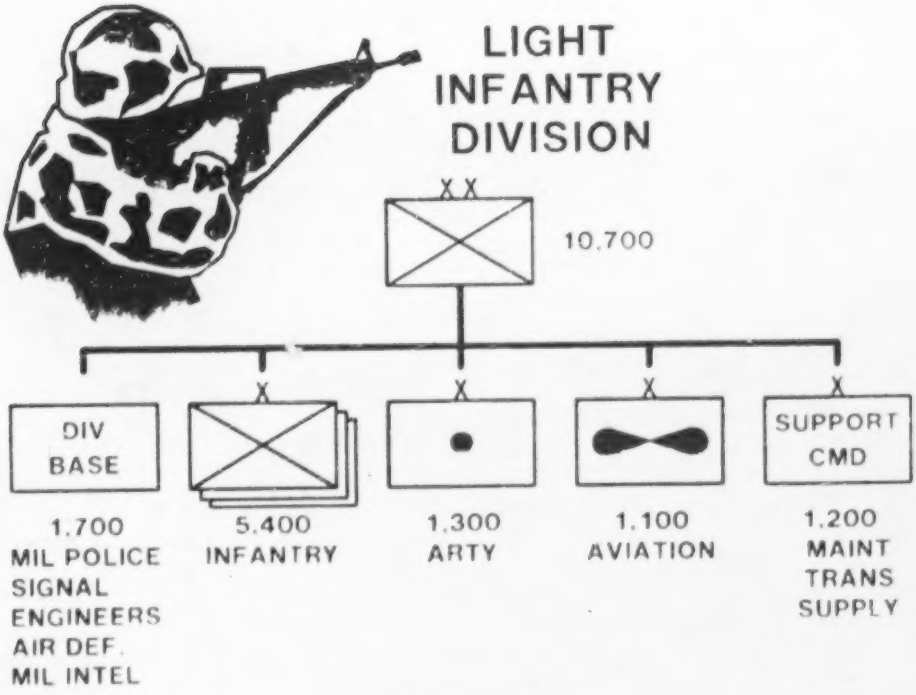
There is another factor that the Secretary alluded to and with which you are so well acquainted Mr. Chairman. The strategic lift shortfall that faces us, has faced us over many years, and will continue to face us, despite the efforts of the Navy and Air Force to put more resources into that area. Even by the end of this decade we are going to be short [deleted] strategic airlift to fulfill our plans. In the most stressful scenarios we are still short in Southwest Asia sealift. So, our initiatives take that into account. In acquisition and design we are trying to make our equipment lighter. We can talk more to that. We are trying to make some of our organizations more readily deployable. This, then, leads us to the 10,000-man division.

Chairman GOLDWATER. I believe I read in the Army magazine that you anticipate 500 C-141 missions to accomplish a lift of a light division.

General WICKHAM. Yes, sir. I am going to show that.

Chairman GOLDWATER. 500?

General WICKHAM. Yes, sir.



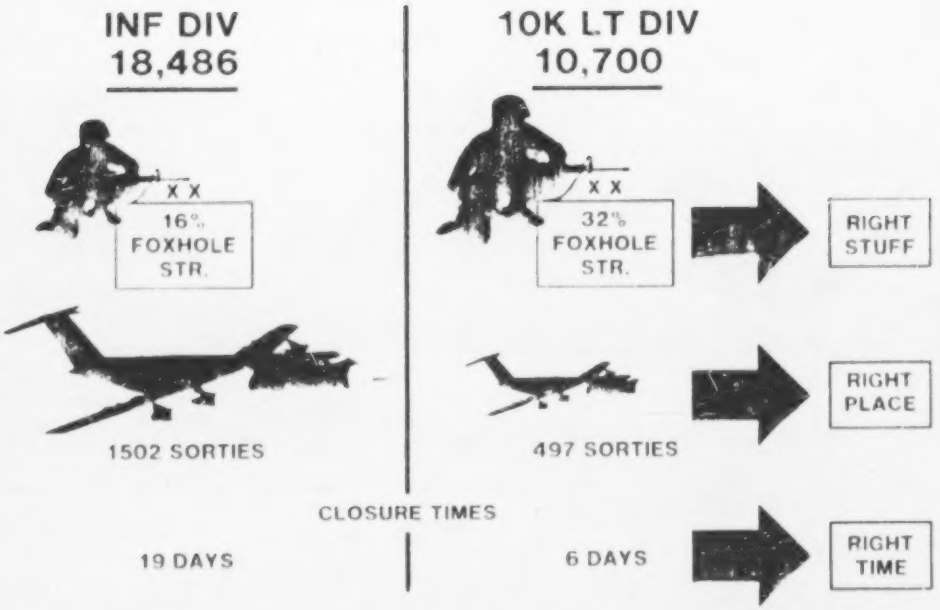
LIGHT DIVISION DESIGN

This led to the design of a division that we indicated is not an unusual size. The Russians have divisions a little bit larger than this. The French have five divisions in their force structure that are of less strength than this. But our light division is a division designed around traditional capabilities, three brigades of infantry.

You see half of the division is in the maneuver infantry elements. In these brigades there are nine battalions of infantry. We have 105mm artillery and are considering the addition of a battery of 155's.

The division also has inherent antitank capability with the attack helicopters and mobility with lift helicopters to move infantry units. There is a support command as well as division base.

So, it is a robust division as I will try to explain a little later.



This gets back to your point about sorties, sir. If you take a look at one of our standard infantry divisions of roughly 18,000 soldiers—as I indicated, they are coming down a bit in size so that we can have a standardized structure in the Army—16 percent of that standard division is so-called foxhole strength, soldiers that are carrying weapons to place fire on the enemy.

It takes something like 1,500 C–141 sorties to move one of those divisions. If we were able to get all of the MAC airlift and civilian reserve air fleet capability to do that, it might take us 19 days to close one of those divisions in a crisis area around the world.

What we have designed is a structure that has twice the percentage of soldiers in foxhole strength. That is the important point. This is more of a fighting division in terms of capabilities.

I am going to show that later on.

Senator THURMOND. I have a few questions for the Secretary of the Army to answer. I want to talk to you later on about some of these things I think are most important. I think you are on the right track. I support what you do.

General WICKHAM. Thank you, Senator.

I will take those questions, sir, and answer them for the record.

Coming back to the business about foxhole strength, this is an important point that will become more clear as we go on here.

This division can deploy in less than 500 sorties. We have kept that as a ceiling to try to discipline the process, and avoid trying to get more of this and more of that and heavy ourselves up. As General Harrison will tell you, we are moving in that direction. We think we can move that division around the world in a third of the time it takes to move the heavy division and we have twice the percentage in foxhole strength.

Chairman GOLDWATER. On the light division you show under the support command roughly 1,200.

General WICKHAM. Yes, sir.

Chairman GOLDWATER. What is the comparison of a support command when you compare it with a heavy division?

General WICKHAM. It probably would be roughly half the size of a heavier division's support command.

Clearly, in a division that has a lot of vehicles, you have a lot more mechanics, maintenance capabilities, and supplies and parts.

Chairman GOLDWATER. Would the division base be the same from 1,700 to what?

General WICKHAM. The division base for a standard division is probably around 2,200.

I want to repeat again, sir, you made a point that 500 sorties is a lot to move a division. It takes 1,500 to move a standard division. It takes nearly 1,000 to move the 82nd. It takes 1,125, roughly, to move the 101st. Those divisions that ostensibly were to be light for rapid deployability basically are rather heavy in terms of the strategic lift.

What we are trying to do is give the National Command Authority a modest capability for rapid insertion to deal with the kind of situations that the Secretary indicated. We believe that these small divisions do have a powerful capability around the world even in high-intensity warfare.

Chairman GOLDWATER. Do you count any C-5 missions in this?

General WICKHAM. Yes.

Chairman GOLDWATER. Or C-17?

General WICKHAM. That is right. These are equivalent C-141 sorties.

There are no pieces of cargo in the light division that require C-5's. We basically down-size them.

Chairman GOLDWATER. How about the heavy lift helicopters?

General WICKHAM. We don't have heavy lift in the light division.

Chairman GOLDWATER. And light helicopters will go in?

General WICKHAM. Yes, sir; you can put them in a C-141. The Blackhawks, with folded blades, can be put in the C-141. If you use C-17 sorties solely, it is less than the number of C-141 sorties.

General Vuono indicates 253 sorties of C-17's will move the whole light division, roughly half of this number. Of course, the C-17's will begin to help over here as well.

Senator GLENN. Could I ask a question?

On equipment, are we using existing equipment?

Do you need new equipment? What is the plan for that?

What is the cost for it? What is the time table?

You are talking about essentially a little different mission here than a regular heavy division.

Does this require new equipment? If so, when and how much?

EQUIPPING LIGHT DIVISIONS

General WICKHAM. A short answer, we will give a more abundant one for the record. The short answer is that it does not require appreciable new equipment. We tried to design light divisions to capitalize on the generic equipment coming into the Army, the

HMMWV's--High Mobility Multipurpose Wheeled Vehicle—the light vehicles, existing mortars, and 105mm artillery.

We are looking at foreign artillery, the 105mm light howitzer the British have that shoots farther, the Blackhawk helicopters and attack helicopters, Cobras that are extant in the system.

If there are any new items, it deals with night vision capability.

Senator GLENN. As far as getting things going and implementing this plan, will you be equipment limited for a while or will you be ready to go with existing equipment we have now?

General WICKHAM. Ready to go with existing equipment. General Harrison is converting the 7th Division. I think I can say equipment is not a problem.

You have some items like the HMMWV's—High mobility multipurpose wheeled vehicles—that are being manufactured.

Secretary MARSH. If I can interrupt, General Vuono made an observation on airlift.

General VUONO. Mr. Chairman, you mentioned the C-17. I would only add in addition to the intertheater sorties we plan, the intratheater airlift capability that we have with the C-17 in that division is significant in any theater of operation into which we would go.

Chairman GOLDWATER. We are a ways off from the C-17. Your original reliance will have to be on the 141, 130's and C-5.

General WICKHAM. That is right. I think the bottom line in answer to your question, Senator Glenn, is that we are able to do what we have planned to do, we are not equipment limited. We do not see any major new items of equipment for this division.

Chairman GOLDWATER. Only the mortars?

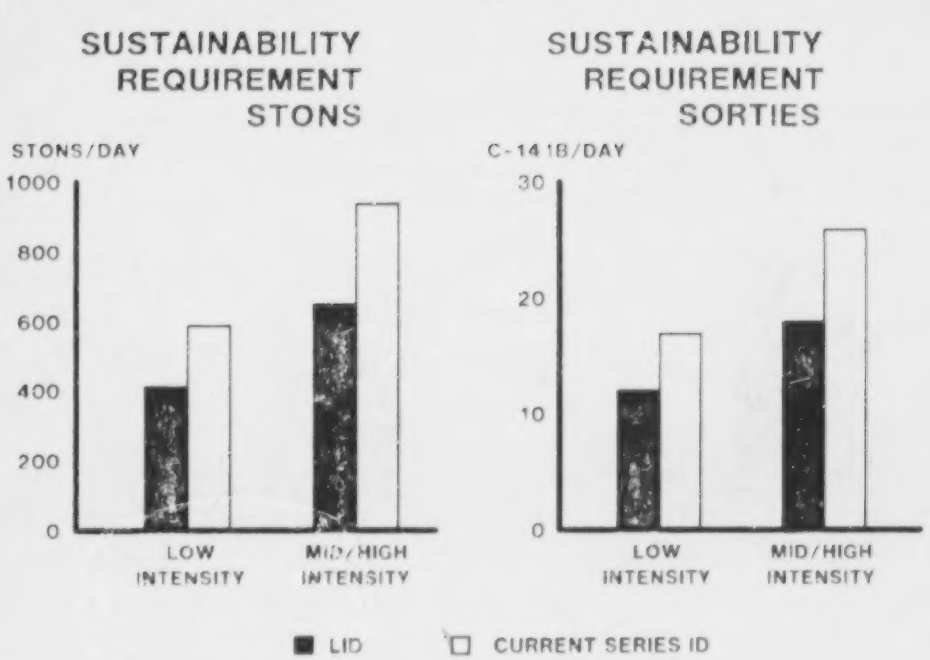
General WICKHAM. The 81mm mortars go into this division.

Chairman GOLDWATER. How about the 120's?

General WICKHAM. The 120mm mortars go into the heavy side of the Army.

Senator GLENN. On your 32 percent versus 16 percent here, you still have the tail behind you here on logistics supply, and so on. You are not cutting down firepower for foxhole, are you?

General WICKHAM. No, sir. I am going to come to that. Let me press on.

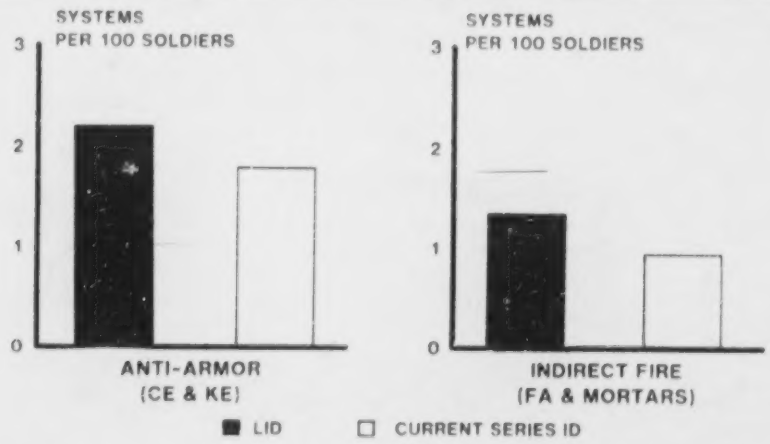


SUSTAINABILITY AND FIREPOWER

Now, what about the sustainability? The firepower comes right after this. This chart shows sustainability requirements for low intensity, and mid/high intensity environments. We are talking on the left about short tons per day. We go over to the right side to show sorties if we want to bring in supplies by air for the light infantry division, and the standard type division. You see the tonnage requirements for the light division are less. Understandably, as it is a smaller division, it needs less. It doesn't need the fuel that a heavier division does. It does need a lot of ammunition because it does have a lot of firepower capability.

Similarly, in the mid to high intensity, less tonnages are required daily. There are less sorties required to keep the division in a fighting mode than the heavier divisions. That takes into account the airlift problems and takes into account the sealift vulnerability the Secretary talked about earlier.

FIREPOWER
STANDARD INF DIV vs LIGHT DIV

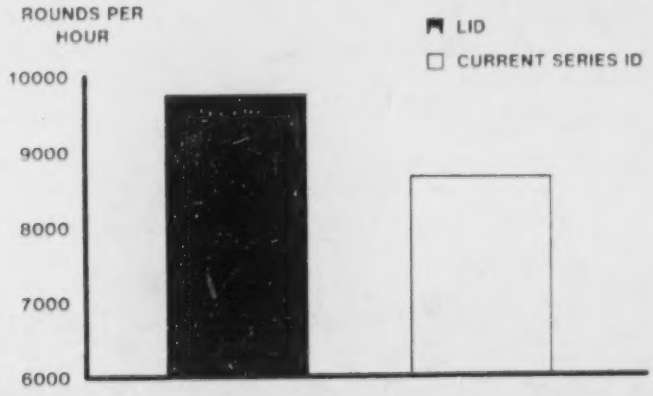


What about firepower? I use a little different way of explaining this. I am talking about firepower capability in terms of systems per hundred soldiers. You will see here that in terms of antiarmor systems, kinetic energy and chemical energy weapons, the light division has more systems per hundred soldiers than the heavier division. There is greater density. They have fewer numbers of them, but the density per soldier is greater.

Similarly, in terms of indirect fire weapons, mortars and artillery, there are more weapons that can shoot indirect fire per hundred soldiers than in our heavier division.

Obviously, a division that has more fighters in it than supporters is going to show that kind of data.

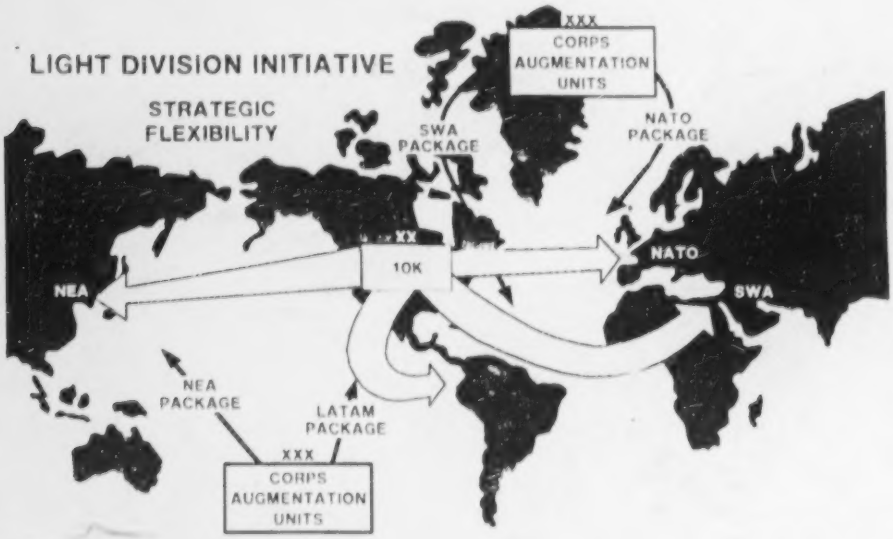
SUSTAINED RATE OF FIRE
STANDARD INF DIV vs LIGHT DIV



Concerning the artillery in the light division, the 105 artillery—we are considering placing a 155 battery in the division that is not

reflected here—can fire more ammunition at a faster rate than the artillery in our heavier divisions.

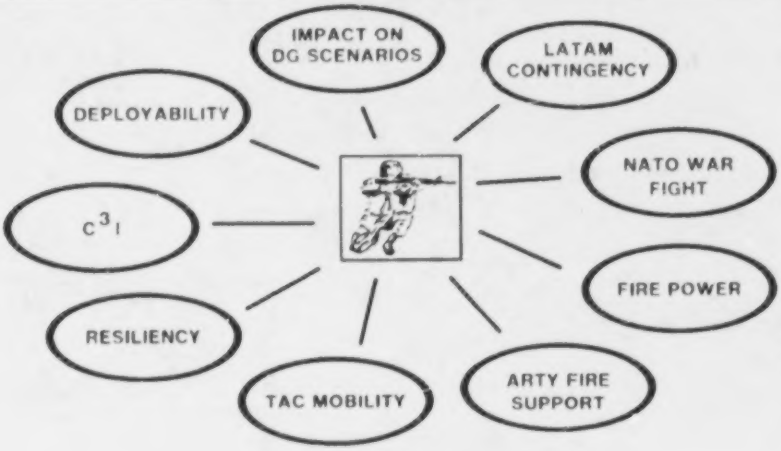
This shows the capability to sustain fire, rounds per hour, over a period of time. So that there is a robustness in terms of firepower capability, both antitank, and indirect, for this small division.



Coming back now full circle to the Secretary's discussion of strategic realities, we think that this small division—and a few of them is all we plan to have—can rapidly deploy anywhere in the world where our interests may be threatened to deter hostilities or to influence events early on, as I will show in war games, to our advantage.

If they need augmentation in the way of more antiarmor capability, heavier artillery, more mobility, more engineers, those capabilities are extant in the corps structure, as General Vuono can tell you. They consist of both active and reserve components.

LT INF DIV CAPABILITIES ANALYSIS



SCENARIO ANALYSIS

We have looked at a number of scenarios around the world and looked at various dimensions of the division. I am not going to go into all of these in great detail, but I want to give you an understanding that we have attempted in a rational and coherent way to evaluate the light division's utility. We examined its impact on defense guidance scenarios given to us by the Office of the Secretary of Defense, looked at contingencies in various parts of the world, Latin America and NATO, and analyzed such areas as artillery support, command, control and communications and intelligence.

This is what we have concluded in general from those analyses.

ANALYTICAL RESULTS

- DEPLOYABILITY . . . RAPID AND FLEXIBLE
- C^3I . . . SIMPLICITY, DURABILITY, INNOVATIVE
- RESILIENCY . . . COMMON SKILLS, EQUIPMENT AND SIMPLE DESIGN
- TAC MOBILITY . . . SURGE MOVE-3 COMBAT BNS AT ONCE . . . NON COMBAT UNITS COMPLETELY MOBILE
- ARTY FIRE SPT . . . ORGANIC DIRECT FIRES FOR EACH COMBAT BN . . . CORPS AUGMENTATION FOR DEEP FIRES
- FIREPOWER . . . ORGANIC A.T. CAPABILITIES . . . CORPS AUGMENTATION FOR ADDED CAPABILITY

Obviously, the deployability is the key issue. For command, control and communications, and intelligence structure we have em-

phasized simplicity and commonality within the Army and that is a major factor.

Tactical mobility. If we have to there is enough mobility in the division, air as well as ground, to move simultaneously one-third of the combat elements in a surge move. It is not a division that is solely foot mobile. It is a division that has inherent mobility and more can be provided if necessary from corps structure.

It does have artillery, as I indicated. It does have organic anti-tank capability and more density per soldier than in the heavier divisions.

LIGHT DIVISION IN LATIN AMERICA

We looked at a Latin American contingency. [Deleted.]

How fast could we react against the nature of the threat we would see there and what conclusions came from that war game?

We could deploy twice as fast and because we could get more combat capability on the ground faster, we suffered less casualties and we were more effective than the heavier structure.

Chairman GOLDWATER. General, in the event that you were called to go to Central America, how long would it take you from the day of decision to the day of operation?

General WICKHAM. This war game involved deployment of a light division in less than a week from day of warning to day of closure. They were fighting before then, fighting within a few days.

Senator NUNN. Is that based on a friendly country or hostile?

General WICKHAM. A light division does not have the capability of forcible entry. We have only one division that can force entry, the 82nd can establish an airhead by parachuting.

Senator NUNN. It would not apply to a country like Nicaragua?

General WICKHAM. Only in case of aggression by them and then rallying with friendly forces.

Senator NUNN. Honduras or something like that?

General WICKHAM. Or getting down there before aggression actually kicked off and we were there to deal with it.

LIGHT DIVISION IN NATO

We looked at a NATO scenario. Obviously, NATO is higher intensity warfare.

Does this kind of division have any utility there?

I recently visited the I German Corps. I think in our posture hearings we had a little discussion about this, and Senator Nunn questioned me about what the Germans are doing.

The Germans made a point of demonstrating for the I German corps, one-third of the corps is dense forest. Another third of the corps is wetlands and peat bogs over which vehicles cannot move. The corps is filled with little villages with thick stone walls and criss-crossed with streams.

They demonstrated that their Leopard II tank and an amphibian vehicle, their Marder, which is their infantry-fighting vehicle became mired in that stream and had to be winched out. The point they were making is light forces are useful to capitalize on the obstacles, so that we can free our heavier forces for maneuver operations. We are revising our defense plans to take into account the

light forces that we already have. The Germans are not going to form any more light units, but they want to capitalize on the light forces. So, there is a utility in NATO.

Greater than 50 percent of the terrain is unsuited to armored warfare. The scenario that we ran indicated that the light division put into a place where it can capitalize on obstacles could defend against two Soviet motorized divisions successfully.

It freed the other forces then for striking operations which actually helped in terms of the outcome of the war game scenario.

Now, first we need to prepare the battlefield and they need some engineers to help with obstacles. There may be a need for some additional reconnaissance capability they might not have. They might need some longer range artillery. Those are capabilities made available to the light division by the corps structure and our Air Land battle doctrine.

Senator NUNN. I agree with that analysis, but there is another question which seems to be pertinent here.

What kind of Soviet forces are you going to be confronting in areas where it will be unsuitable for armor in the first days of the battle.

What will you find in those peat bogs and forests to fight?

General WICKHAM. You are going to find Spetznaz or ranger-commandos, perhaps airborne infantry and dismounted infantry from their motorized divisions. You can't leave a vacuum there, but you can leave forces that will make it very difficult for them to move to outflank friendly forces.

As they bypass they leave exposed flanks that they have to protect with forces. This light force utility does contribute to a continuum of defense across the NATO barriers by capitalizing on obstacles with infantry capability.

Senator NUNN. Are the Germans planning to convert their tremendous manpower reserve into light units?

It seems to me it will greatly increase their contribution to NATO.

General WICKHAM. We recognize the point you made in the hearing we had on the budget presentation. The Germans need to have heavy forces extant on the ground. They don't intend to change their heavy structure on the border. As they look to problems of manpower, as they look to the cost of fielding more heavy forces out of the reserve, I suspect they may look increasingly at some lighter forces to call up quickly from local areas, farm areas, that will free up heavier forces that are active for striking purposes. Light forces are also less costly to equip.

Senator NUNN. I don't want to let them off the hook. They ought to heavy up where they can. They have reserve units with no equipment whatsoever.

General WICKHAM. I don't sense any letup or attempts to get off the hook. I talked with their new Inspector General; he has no intention of doing that. He does look to the reserves, some of the light reserves, and the possibility of capitalizing on this concept with them.

Senator GLENN. Mr. Chairman, I have a series of questions I would like to submit and have answered for the record.

Submit your answers for the record if you would, please.

LIGHT DIVISION AND GLOBAL RESPONSE

General WICKHAM. This is a scenario that was done according to a global situation.

[Deleted.] The light divisions were asked for by several of the commanders-in-chief. They found them to be readily deployable and important to fulfilling their needs for deterrence. At the end of the war game the one thing that made a difference in terms of the aggressor's concept of further operations, the one thing that contributed most to deterrence, was the presence of U.S. ground forces deployed overseas in the area that was subject to question.

The only forces we could get there in time were light divisions. Light divisions were practical and to real commanders they made the difference.

Finally, what we are trying to do, Mr. Chairman and members of the committee, is to create a better balance within existing resources. We don't envision any major items of new equipment with the light division. We capitalize on the strategic lift capabilities of the Air Force in particular. This fits hand in glove with the C-17 and with the improvement in the C-141's.

We think we have come full circle. The light division is relevant to the geostrategic realities of the world we face.

Mr. Chairman, this finishes what the Secretary and I want to cover with you. Now we and other members here are available for questions.

General Vuono can get into greater detail on the AirLand battle concepts.

General Harrison can talk in great detail about the training of the new light division and the capabilities of the soldiers.

Chairman GOLDWATER. Senator Nunn.

Senator NUNN. I will defer for now. I have already asked a few questions. I will come back.

Chairman GOLDWATER. I don't have many.

By the way, there is a very excellent article on this subject in the Army magazine by General Depuy.

General WICKHAM. Yes, sir; it was unsolicited, I didn't ask him to do it.

SUSTAINABILITY OF LIGHT INFANTRY DIVISION

Chairman GOLDWATER. It was very well done.

What do you figure the sustainability of the light infantry division to be under average conditions?

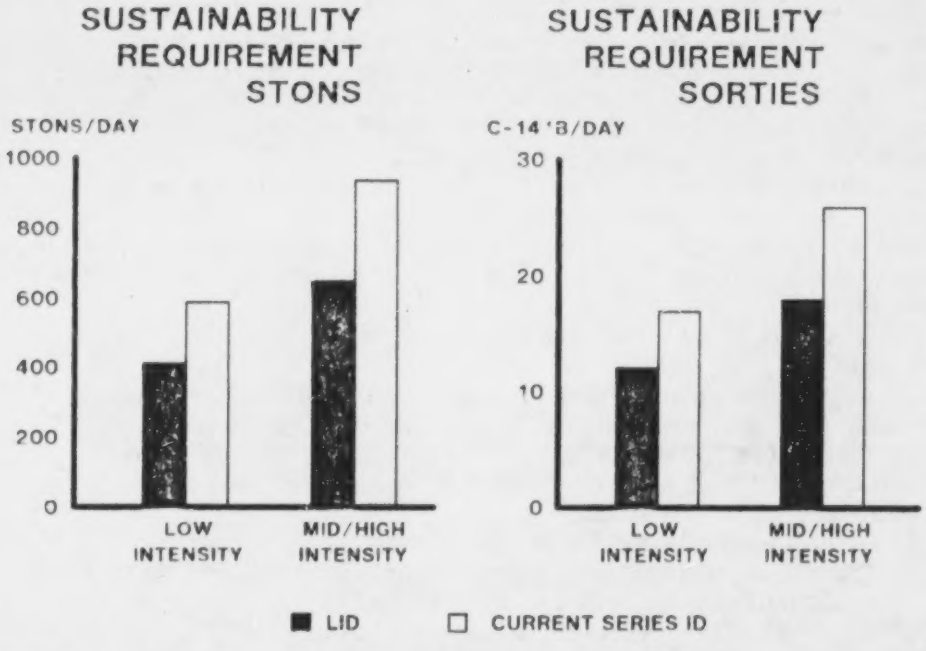
General WICKHAM. I showed you one slide, sir. I won't go back over that. It shows that it requires less to sustain it than a heavier division. The light division will carry 2 days of supply with it. The heavier division probably will carry 3 days of supply. Our plans for resupply are to issue every division committed to combat 5-day packets of push supply.

We don't see that there is really any problem in terms of resupplying the light division versus any other type of division. The supplies are pushed to it. With its own organic capability it can pick them up and move them about on the battlefield just as well as the heavier division. If it does need more transportation because of the

nature of the terrain, that would be provided by the corps structure.

Chairman GOLDWATER. To take an example, the Middle East, where supply is not going to be easily maintained, do you feel confident of our ability to meet sustainability requirements [deleted].

General WICKHAM. Yes, sir. We don't have, as you know, any supplies pre-positioned in Southwest Asia except aboard ships in Diego Garcia. We do have ammunition there for Army forces. We do have plans that are at least in the gestation period, but have not been presented in budgetary documents yet, to forward deploy Army munitions and perhaps more Army equipment in Southwest Asia if we can find the right locations and get the authority to do that.



Let me have that slide that shows the sustainability. You can see, sir, in terms of air resupply, the light division requires two-thirds or three-quarters of a heavy division. So, if we do have a paucity of strategic lift, the lighter divisions help us through that problem in terms of daily resupply. They are smaller divisions. They just require less, although they do have a powerful capability in terms of firepower.

Chairman GOLDWATER. Your heavy divisions will face the same problems with supplies?

General WICKHAM. They will face the same problem; yes, sir. They will face it in spades.

Chairman GOLDWATER. That is one of the major questions we face, how long a war can be fought. Is it 30, 45, 60 days?

General WICKHAM. Well, sir, that is the perennial problem. In NATO we are trying to achieve more [deleted] days of supply pre-positioned in Europe in terms of ammunition and war reserve replacement tanks than we presently maintain.

We, unfortunately, do not have in this country the required so-called D to P capability, D-day to Production day. It takes 18 months to 2 years to start producing major items of equipment, new artillery weapons, new tanks. To ramp up our tank production will take at least 1 year to 2 years. As a nation we have only the extant industrial or production capability to fight a relatively short global war.

We have made major improvements in the last 4 years, thanks to the Congress, in terms of sustainability capabilities. We have pre-positioned more overseas. We have opened up more production lines for ammunition in the United States. But the arsenal of democracy is cold in terms of our ability to ramp up quickly.

As you remember, in World War II we went from zero to 50,000 tanks in 1 year. During the Yom Kippur crisis in 1973 when we were producing 260 tanks a year it took us 2 years to get to 1,000 tanks because all but one of the foundries were closed.

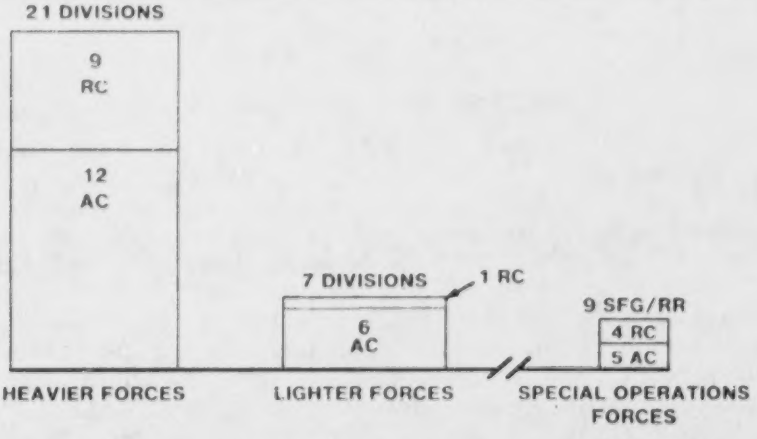
Chairman GOLDWATER. That is not only your problem, it is one of our problems, it is one of the problems of the President, to convince this country that we are not going to have the benefit in another war of two oceans and a lot of time, that we had better get along with the job of providing adequate armor to you people.

General WICKHAM. If I can make a footnote on that, Mr. Chairman, that in a way is one of the inherent reasons behind the light forces. It gives us the capability, by being able to deploy quickly, to deter hostilities that might unravel and that would be disadvantageous to us.

STRATEGIC BALANCE

Chairman GOLDWATER. How does the light division fit within the total balance of ground forces to satisfy strategic requirements?

COMPOSITION OF THE TOTAL ARMY
AS OF FY 1986



General WICKHAM. This shows the balance of the structure in the Army. Heavy forces, mechanized and armored forces, total 21 divisions. Those standpipes are roughly in terms of size. Then our

seven small, lighter divisions and then, of course, our special forces and ranger regiment. We believe that this is a proper balance.

I want to reassure members of the committee here that our endeavors to improve the capability on the light side of the Army in no way detracts from the momentum or commitment to our heavy forces. This gets back to Senator Nunn's point, the importance of heavy forces to deter hostilities and to win in Europe is the sine qua non of our Nation's security. All we are trying to do is augment those heavy capabilities in the lighter side to give us a broader-based capability to deter across the spectrum.

STATEMENT OF LT. GEN. CARL E. VUONO, DEPUTY CHIEF OF STAFF FOR OPERATIONS, DEPARTMENT OF THE ARMY

General VUONO. I will say if you look at any of our scenarios, Mr. Chairman, you will find the need for that balance, that the Chief of Staff just described, of heavy and light forces.

Chairman GOLDWATER. That leads up to a question I think you partially answered.

My feeling is that we have a greater chance of going to war in the Middle East than anyplace else.

Does the Army intend to have pre-positioned material configured to unit sets, equipment prestocked for light infantry divisions?

I think you indicated by a previous answer that that would be very difficult in the general area of the Islamic presence.

General WICKHAM. As you know—I will come to Southwest Asia in just a second—we have the obligation to provide six divisions in 10 days to NATO. That is the old 10-in-10 concept, 4 divisions over there now, to be reinforced with 6, and POMCUS, pre-positioned operational material configured in units sets, that is for those 6 divisions. One of those six would be a light division in Europe.

We have no extant plans in budget documents to pre-position material in Southwest Asia other than what is at Diego Garcia. We are looking at the possibility of some items of equipment that might help us with over-the-shore movement. That might help us in terms of mobility were we to have to commit forces in Southwest Asia.

[Deleted.]

MOBILITY OF LIGHT INFANTRY DIVISION

Chairman GOLDWATER. Getting back to that scenario that I have been dwelling on, the Middle East, will the light infantry division have the mobility that would be required against what I consider to be now the heavy divisions that more or less deployed there?

General WICKHAM. I will ask General Vuono to back me up on this.

Clearly, none of us ever want to fight in Southwest Asia. The lines of communications there are too long for us. [Deleted.] We would probably get forces there too late. It would take 2 to 3 months to close the [deleted] forces in Southwest Asia.

By then, if aggression started, it might be all over. Therefore, our basic strategy for Southwest Asia is to deter hostilities, not to get into them. Deterrence is everything.

[Deleted.]

Can they fight on the ground? Can they move on the ground as readily as heavier forces? No; they can't. But there are great obstacles in central Iran. The mountains would be very difficult to move through, and can be used very effectively for interdiction. The same situation exists in northwestern Iran. Light forces could maneuver in that area. Heavier forces would be much more mobile, but it would take longer, 1 to 2 months, to get them there.

So, it is a trade. Does presence and rapid deployment capability contribute to deterrence? We believe it does. We believe in time, when we think our way through all of this, maybe some pre-positioned assets, trucks, that kind of thing, might make some sense in that area if we can find a place where we are welcomed.

Chairman GOLDWATER. One of the big arguments that I see on behalf of the light division is the fact that you can move by air into relatively difficult terrain such as you have described in parts of Iran.

I am still thinking of the battlefield farther to the west than Iran. I am thinking of the possibility of a war situation breaking out where we might be called into the general area, Egypt and north.

General WICKHAM. We clearly would never put a light division in a desert floor, in an El Alemein type of scenario. You would have to have enormous engineering capability to construct earthworks to help them. All they have basically are HMMWV's—high mobility multipurpose wheeled vehicle—to move themselves and helicopters to move two battalions at once. So, it does have a limited organic mobility capability. It has to augment with armor and vehicles in that part of the world. We don't intend to fight with light divisions alone in that kind of scenario against a heavily armored offensive force.

We think we can by presence and by judicious placement in scenarios and in terrain deter hostilities and influence events to our advantage.

General VUONO. I would say if we were able to do that, that would be, obviously, the way we would want to go. If in fact we went there and we were able to bring additional heavy forces, there is a definite advantage you get with a light division in conjunction with heavy forces as part of a corps operation.

If you pick the terrain properly, if you can prepare it and augment your light forces, it gives you, I think, a major advantage of freeing up heavy forces. Whether it is Southwest Asia or whether it is in the NATO scenario, it is important where you can put the light division on the ground.

Let us take the V corps area in NATO where there is some terrain that is ideally suited for this light division. Properly augmented you free up a heavy force that can be used as a reserve to strike the enemy in a situation to your advantage—I am talking strictly now about the battlefield—once the war starts. This gives us a major advantage of the light division when used in conjunction with heavier forces.

Chairman GOLDWATER. Thank you.

Senator Nunn.

STRATEGIC PLANNING AND LIGHT INFANTRY DIVISION

Senator NUNN. General Wickham, and, Mr. Secretary, as you know, I support the light division initiative. I think it is a move in the right direction. I think our allies in given areas will play more and more of a heavy role in the future.

Although we must still have heavy forces, I think the future is in the direction you are moving.

Have the Joint Chiefs really thought through the priority list of divisions in terms of airlift and sealift? Let us say for the European scenario?

Has this light division concept now been integrated in a broader strategic plan by the Joint Chiefs?

General WICKHAM. The short answer is "yes." General Vuono will give you a longer one.

The Joint Chiefs of Staff basically validated the requirement for [deleted] light divisions in the world wide operations plans. One of the divisions already is part of the six reinforcing divisions to go to Europe as one of the POMCUS divisions.

Virtually all of the Army's divisions, as you know, are listed in the defense planning questionnaire, the DPQ response to NATO. If the war originates in NATO, all of our forces go there.

Senator NUNN. We have real constraints in terms of airlift and sealift in the first 10 days or 2 weeks of any war.

The advantage of light division is that it can be deployed quickly. We lose that advantage if the heavy division will have priority in air and sealift and the light division will be sitting waiting with a lower priority.

How many of the light divisions in the European scenario are going right now if war were to start?

I don't know when you will have your light division fully equipped.

The next day the war starts in Europe, what is your priority? How many of your divisions will be going in the first 2 weeks?

General VUONO. The capability there is for several divisions [deleted] in the first 10 days.

Senator NUNN. Are they all [deleted] your light divisions?

General VUONO. No, sir; [deleted]. Not in the first 10 days.

Senator NUNN. How many light divisions are in the first 10 days in Europe?

General VUONO. In 1987 it will be one.

Senator NUNN. That is what I am concerned about, whether we are out of sync.

I find so many times a service doing something with specific advantages for its divisions which are not included in the JCS plans.

If we are only going to have one in the first 10 days and there are no plans for our allies to be able to fight much beyond that [deleted] what then is the utility of the light division in the overall European context in the next 10 years? They are not going to get there.

General WICKHAM. They are not going to get there necessarily in the 10 days, but if we have strategic warning, as you know so well, we can begin to deploy through fast sealift as well as by air. If we can mobilize CRAF—civil reserve air fleet—stage 3, European

CRAF, we have more airlift, but that takes warning and mobilization and preparation of air fields.

If we have congressional authority to call up more than 100,000 soldiers, and we plan to come to the Congress and ask for more than that, something like a quarter of a million, all of that will help us.

As the chart indicated, we only plan to form seven light divisions, of which one is Reserve Component. We already have two Active now. We are converting two more and we will activate three more.

These light divisions are useful in the NATO environment, but that is not their principal purpose. They can be reinforcing divisions and if we have time to push all of our forces to NATO, they can be useful. Their primary purpose is in the mid- to low-intensity area. Further, they are useful to deter hostilities elsewhere in the world or to secure our interests there.

MOST LIKELY LIGHT DIVISION EMPLOYMENT AREAS

Senator NUNN. If you picked out three scenarios that would be most likely to use the light divisions over the next decade, what would those three scenarios be?

General WICKHAM. Northeast Asia, Southwest Asia, and Latin America.

Senator NUNN. Northwest Asia, to be a little more specific, would be——

General WICKHAM. Primarily Korea [deleted].

Senator NUNN. They are not primarily European-oriented?

General WICKHAM. No, sir. All of us agree that the risk to everything we hold dear is greatest in NATO, but the likelihood of hostility there is probably the lowest.

Senator NUNN. I agree with that. One or two other questions.

General Hollingsworth, who I have very high regard for and I know many others do, has recommended a light division structure of approximately 16,000 personnel, 12,500 will be combat troops, 3,500 support troops, about 1,000 officers.

The structure that he proposes would have an infantry division with eight rifle battalions, artillery battalions, one air defense battalion and one antitank battalion.

How does this concept measure with what you have planned? Is this similar or is it far apart?

General WICKHAM. Senator Nunn, if you have 12 generals in a room together, they would come up with 12 different designs of a division.

His design, I am sure, meets the scenarios he has in his own mind. This division structure that we have developed here is based on the brains of the brightest young people that the Army has today.

It has been vetted in terms of the scenarios that we think more likely. It is driven by the constraints of airlift that are real. It is driven by constraints in terms of outside cargoes that are real. And it is driven in terms of resource constraints, a 781,000-man Army. That is how we have arrived at this as a balanced force. It has grown slightly. Our original concept was 10,200. It has increased to

10,700. That is a ceiling. The Secretary and I said the division would not be more than 10,700. We think it is a robust, tough little division.

General Hollingsworth has a little different mixture but we had to put a box some place.

REGIONAL ORIENTATION

Senator NUNN. General Vuono, let me ask one question in terms of training.

General Wickham discussed three areas that are most likely for light infantry. Do you plan to have divisions specialize in a specific geographical area? For example, are you going to have one division that will be exclusively prepare for Southwest Asia, would be trained, would look at maps there, would have advanced knowledge, mockup exercises, all that kind of thing, or are you going to have these divisions fully capable of going into all areas?

General VUONO. Not completely, sir. Our plan is to have them geared so that they can go worldwide against any scenario. We want them to be trained properly so that they are rugged enough to go into any of the scenarios we talked about, be it Latin America or Southwest Asia.

Senator NUNN. I think that is an attractive principle. In reality, however, we know of the resource problems, we know the airlift and sealift problems.

If we are really going to have this light division concept, the key to success is rapid deployment in the quickest period of time, which continues to deterrence. I would like to see substantially larger airlift and sealift resources, more specific scenario type training for the division so that we would have a division that would know every foothill and mountain in a certain area of the world.

I think that greatly enhances deterrence if you do that. I know the Army prefers to train divisions to be able to fight everywhere, but I don't think that is realistic any more.

Secretary MARSH. We do have some experience in that area. The commanding general of the 7th Division, General Harrison, is here and might want to contribute to that.

STATEMENT OF MAJ. GEN. WILLIAM H. HARRISON, COMMANDER, 7TH INFANTRY DIVISION

General HARRISON. Our primary interest in training is to make our soldiers physically fit to go anywhere in the world. I understand the point you are making. We have projected the 7th Division in its light configuration now to Korea; they did a splendid job over there. In winter we went from California to Korea and it had absolutely no impact on us. They were able to perform and do everything.

Granted the weather in Korea was not as severe as it has been some years, but they performed magnificently. We have plans now to project the division in other parts of the world to make sure we know what we can do and what the challenges are going to be.

General WICKHAM. General Galvin in SOUTHCOM has asked for a brigade of that division to deploy there in exercises. So, you are right on target, Senator Nunn.

We are focusing some of our lighter forces on areas more likely for their use. The special forces groups are regionally oriented.

Senator NUNN. Let us use the example of Iran. We are not going to get over there and fight a war with heavy-forces unless we have a tremendous amount of time for mobilization and deployment, unless we are invited in, unless we have 6 months to build up. I think that is very unlikely.

If instead we had a couple of light divisions that were well focused and knew everything about that mountain terrain, if we developed a policy of interdicting with light mobile force rather than confronting Soviet forces, head to head, I think that is deterrence.

I don't see any other way we can deter them in that part of the world other than with that kind of strategy.

Anyway, I approve of the direction you are going.

Chairman GOLDWATER. Senator Gramm?

STATIONING OF LIGHT INFANTRY DIVISIONS

Senator GRAMM. Thank you, Mr. Chairman.

I am convinced in terms of the importance of the deterrence force concept. Let me ask a couple of questions about deployment.

Where are these units going, the 7th and the 25th?

Tell me where they are. Where are they going to be home based?

General WICKHAM. The light divisions that are already in existence will remain where they are.

General Harrison's division, the 7th at Fort Ord, and General Kicklighter's division, the 25th, in Hawaii will remain there.

The 101st at Fort Campbell remains there and the 82d remains at Bragg.

The 10th Mountain Division which the Secretary and others activated at Fort Drum in New York is one of the new divisions. That will be a division that is two-thirds active and one-third rounded out with a National Guard brigade from New York, the 27th Infantry Brigade.

The 6th Division for Alaska has yet to be activated. As you know, we already have a brigade in Alaska, the 172d. We intend to put another active brigade up there, and raise the flag next year on a theater defense division. It is a somewhat different structure because of the nature of the terrain there.

That will be rounded out with a Reserve or National Guard brigade yet to be selected by the Secretary.

Those are the general locations. We have not yet decided where the division headquarters will go in Alaska.

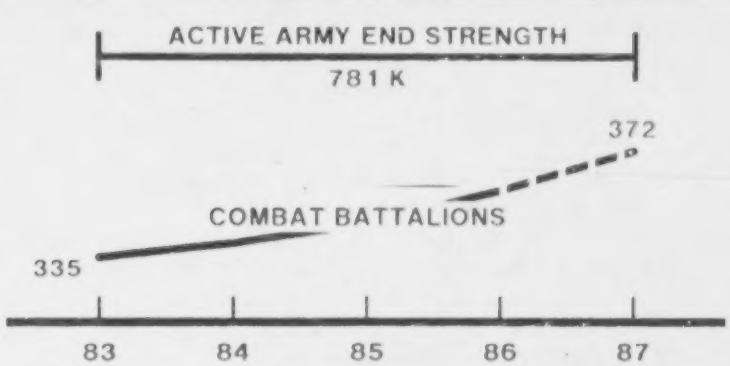
FORT DRUM CONSTRUCTION

Senator GRAMM. In terms of Fort Drum, of course, we have a big installation there.

What are we talking about there in terms of new construction, the houses, the new mountain division, two-thirds of the regular, a third reserve?

General WICKHAM. The cost of that division I think needs to be put into perspective. If we could just have the growth of combat capability slide.

GROWTH OF COMBAT CAPABILITY



As I showed earlier, Senator Gramm, the Army is creating more combat capability irrespective of its stationing. That means that we have to build facilities, family housing, maintenance shops, barracks for soldiers, dental clinics, PX's, those kinds of things, someplace, whether at Fort Drum, Fort Campbell, or Fort Ord or anywhere else, because we are creating more combat capability within the Army.

What we have done in the case of Fort Drum is to say instead of building A, B, C, D around the Army, we are going to congeal it in one piece, Fort Drum, and then somewhere in Alaska. The MILCON—military construction—and family housing that would occur anyway because of this growth will go into Fort Drum. If we don't construct facilities at Fort Drum, we still would have a bill to pay in terms of totality. Now, the overall extra cost of Fort Drum, sort of a net additional cost of building a post up there beyond what we would have to spend if we kept those units elsewhere and built the housing elsewhere, is probably in the neighborhood of $250 million—that is the delta—of which about 20 percent is being paid for by New York.

New York State is building utilities to service the post. They are also funding some housing in the area—Mr. Shannon can get into this in greater detail—and building lease-housing.

STATEMENT OF BRIG. GEN. DANIEL R. SCHROEDER, DEPUTY ASSISTANT CHIEF OF ENGINEERS

General SCHROEDER. We forged a rather extraordinary relationship with New York State and some of the municipalities in that New York has broken ground on 204 of the 600 total houses they will build to help ameliorate some of the housing shortfall we see occurring at Fort Drum.

In addition, they are forming a regional development authority that will provide services to Fort Drum and surrounding communities.

The bottom line to us results in a reduction in our capital cost investment of about $54 million right now. We are exploring other opportunities to keep that delta moving in a downward direction.

Senator GRAMM. Thank you, Mr. Chairman.

Chairman GOLDWATER. Senator Warner?

ANTITANK WEAPONS

Senator WARNER. Thank you, Mr. Chairman.

I applaud your objective. I am intrigued by an article written by General Depuy in which he describes these programs and comes forward with the observation that you have R&D programs going in the medium antitank weapons and interim light system which would be an improved version of the current LAW or the largely Swedish AT-4.

He describes the light weapon as one which "must be maneuverable in the hands of a single tank hunting soldier who may find it necessary to crawl, run, jump, or hide."

It seems that this increased emphasis on the use of lighter infantry in fairness to the infantrymen we should have an R&D program for some kind of light antitank weapon and that it should be high visibility and importance in the Army.

General WICKHAM. Amen. We have plans to test this summer the Swedish AT-4 and an improved LAW—light antitank weapon—to give the soldier some kind of last-ditch armor killing capability.

As you know, sir, neither the LAW nor any weapon of its size is going to kill a tank head on. On the frontal armor of tanks fielded now, the T-80's, it is impossible for a physics package of a small weapon that size to get through it with a chemical energy round.

It does give the soldier a last-ditch weapon the way the bazooka did in Bastogne that immobilized vehicles by mobility kills. We intend to do that.

The Dragon we have now in the field needs replacement. It will shoot out about a thousand meters. That again is a chemical energy round and it will not kill in a frontal attack on a tank.

Senator WARNER. When you use the word chemical, of course that is actively being discussed in the Congress in a different context.

You did mean it in the context of——

General WICKHAM. A shaped charge versus kinetic energy penetrator, burn through versus punch through. Burn through basically is the only technique that we are giving soldiers with the Dragon, with the TOW—tube-launched, optically-tracked, wire-guided missile—and with the LAW now. They have a burn-through type of round. Those rounds will not kill the armor that we anticipate in the future. So, we do have an R&D program to replace the Dragon with a better system, the AAWS-M—advanced antitank weapons system—medium.

We do have improvements, product improvements coming down for the TOW.

Senator WARNER. These would be characterized as a light weapon which must be maneuverable in the hands of a single tank hunting soldier who may find it necessary to crawl, run, jump, or hide?

General WICKHAM. Yes, sir. One of the specifications of the AAWS-M—Advanced Antitank Weapons System-Medium—is that it could be soldier carried and would not require a crew. There are a lot of technical complexities to that.

We may have to think about a top down attack where the round goes over the tank and there is a forged charge that goes down through the top [deleted].

We may be pushing the state-of-the-art of technology to give a single soldier a weapon of whatever range to kill a tank head on or top down.

Senator WARNER. Do I infer then that you think we might be pushing the state of technology too far and will have to reconcile ourselves that a single soldier can no longer do that job?

General WICKHAM. No, sir, because I would not want to prejudge the opportunity that technology might provide us.

There are ways of killing tanks. We don't, for example, need to get a hard kill where we penetrate into the tank and kill everything in it. We may do enough if we get a soft kill, such as a mobility kill or kill the optics. A tank that is stopped on the battlefield in an inopportune moment with his gun pointing up like that is as vulnerable as if you achieved a catastrophic kill.

We may need to rethink how we kill. We may not want to insist on a hard kill, but go for a soft kill. We have some technology in hand now with fiber optics and television where you have a maneuverable weapon, through which you can see what you are doing and kill it. But that would not be a single soldier-carried weapon.

ACTIVATION OF 29TH DIVISION

Senator WARNER. Thank you, gentlemen.

Mr. Secretary, you and I discussed in previous times the future of the 29th Division as it relates to the Commonwealth of Virginia. We cannot look at this with total objectivity, neither you nor I.

I suppose the plans are still forging ahead?

Secretary MARSH. They are very much on track, Senator. I appreciate your raising that. We appreciate very much your help with the 29th.

The current plans, I think, are for activation ceremonies the first week in October and you are on the October list as are other members of the committee.

Chairman GOLDWATER. Before we conclude, may I comment again on the article in the Army magazine.

There is a very appropriate advertisement in the middle of this for antitank weapons.

I want to thank you.

DEPLOYMENT FROM FORT BENNING TO FORT DRUM

Senator NUNN. Since Senator Warner has broken the ice on parochial interest. What are your plans in regard to Fort Benning? Fort Benning-Fort Drum phasing in?

What is the latest information on that, Mr. Secretary?

Secretary MARSH. The current plans are for the activation of the division with the division headquarters and a brigade at Fort Drum

and the activation of a brigade at Fort Benning with a roundout brigade at Fort Drum from the New York National Guard.

The movement of the second active brigade to Fort Drum will be determined, of course, by funding lines and completion of the activation and establishment of the first brigade that goes there. The decision was made in the Department of the Army, which I think was a sound one, that the long pole in the tent will be family housing. We must address our development at Fort Drum based on our ability to house the soldier, if he is single, or provide adequate housing if it is a family situation.

I think General Schroeder could give you time lines.

Senator NUNN. What components of the light division would remain at Fort Benning, let us say, 5 or 6 years from now if the Army's plans are carried out?

I need some kind of time chart.

General SCHROEDER. We would hope the facilities at Fort Drum would be completed by fiscal year 1989. The battalions that are going into Fort Benning will be COHORT [Cohesion, Operational Readiness and Training] battalions. We would like to time their move to Fort Drum in such a way that the facilities are ready to accommodate them and those COHORT enlistment contracts can be fulfilled.

If our time line is accommodated, I would say that move would occur at the earliest in fiscal year 1989.

Senator NUNN. Calendar year 1988?

General SCHROEDER. I would say closer to calendar year 1989.

Senator NUNN. Would that mean that by 1990, if your plans are on schedule, you will not have a light division component at Benning at all? Will there be some remnants there?

General SCHROEDER. With regard to the 10th Mountain Division we would hope the entire 10th Mountain Division would be based at Fort Drum by that point in time.

What would remain in the light force at Fort Benning, I would like to defer to my colleague, General Greenway.

STATEMENT OF BRIG. GEN. JOHN R. GREENWAY, OFFICE OF THE DEPUTY CHIEF OF STAFF FOR OPERATIONS AND PLANS

General GREENWAY. That would be correct. The last elements of that brigade, which consists of two or three battalions and brigade headquarters, would move to Fort Drum in late 1988—early 1989, and there would then be no remaining elements of the light division at Benning.

Senator NUNN. What about the housing facilities and so forth that will be at Benning at that stage?

General SCHROEDER. There is an interim stationing plan at Fort Benning that involves the use of a "Starship," a barracks that has been designed for trainees. The use of it on a temporary basis by the brigade of the 10th Mountain Division will not impact adversely on those trainees.

As you may be aware, there is a project that has merit on its own weight for the rennovation of the area called the cuartels to accommodate unaccompanied personnel at Benning. It is our intent to temporarily house those 10th Mountain Division soldiers in that

facility pending their relocation to Fort Drum at such time as that may be possible.

Senator NUNN. Thank you.

SIZE OF SECOND ECHELON

Senator WARNER. Mr. Chairman, if I might ask a few questions.

The Soviets, I understand, have a height limitation on their personnel for tanks of 5 feet 6 inches, and isn't it correct that they then build their tanks around this parameter?

General WICKHAM. Basically that is about right. I am not sure it is 5 feet 6 inches, but there is a height limitation on those that can get into the Soviet armored corps.

The ROK—Republic of Korea—indigenous tank the Koreans are building is smaller than the M1 because smaller people go into the Korean tanks.

Senator WARNER. The question is prompted by seeing a relatively distinguished array of second echelon behind you, all 6 feet 3 inches.

How do you package them in our tanks?

General GREENWAY. I might speak to that, Senator.

I am 6 feet 4 inches and my branch is armor. There is some difficulty in the driver and gunnery seat.

Senator WARNER. Have we built the M1 to accommodate you?

General GREENWAY. Yes, sir.

Secretary MARSH. You mentioned the Reserve component. The point I might make is that we talk about the 199 Soviet divisions. Those divisions are not equal in size, strength and capability. There are three categories, A, B and C.

The Soviet reserve force structure is quite different from the American Reserve structure. It is not organized even along similar lines.

I would say to you that a briefing on the Soviet reserve structure would make you feel better, as it does me, about the manner in which we organize, train and equip the Guard and Active Reserve.

The Soviet reserve component does not measure up in any way to that. Some of these divisions we are talking about are nowhere near full strength. They would have to flesh them out with mobilization of augmentees.

Senator WARNER. That was the situation in our Army when you took charge of the Department of the Army, Mr. Secretary, and you turned that around beautifully.

Secretary MARSH. That is to your credit.

Chairman GOLDWATER. Not having any parochial interest yet, other than Fort Huachuca and that is not slated for a light division, I want to thank you gentlemen for coming. It has been a very interesting session. I think it has proven to be a very worthwhile hearing.

I am sorry more of the committee didn't show up, but we have rather important legislation on the floor.

[Questions submitted by the Senators of the Armed Services Committee to be answered for the record follows:]

QUESTIONS SUBMITTED BY SENATOR BARRY GOLDWATER

LID SPACES

Chairman GOLDWATER. Given a fixed military end strength, where will spaces for the new light infantry divisions be obtained from within the active structure. Are these decrements in the active component a reduction in military capability?

General WICKHAM. The light initiatives are part of a total Army restructuring effort to provide a balanced force of heavy, light, and special operations units, organized to execute Airland Battle doctrine. This restructuring has been constrained by a fixed Active Component (AC) end strength so that any additions to the force structure must be offset by comparable reductions. Active component initiatives support the activation of the 10th Mountain Division (Lt Inf) at Fort Drum and the 6th ID(L) in Alaska (using existing forces), conversion of the 7th ID and 25th ID to light infantry design, and improvements in corps support for light forces. Heavy corps increases include the transfer of units from divisions to corps (field artillery, air defense artillery, etc) to support the increased emphasis on the Corps warfight. SOF enhancements include additional rangers, special forces and support elements to provide increased flexibility through added military response options to the National Command Authority. These improved capabilities result from organizational modernization which streamlines heavy divisions (transfers assets to Corps, reduces squad/crew size and eliminates selected functions) and converts light forces to new Army of Excellence (AOE) designs. Economies and efficiencies include application of technology to improve unit efficiency (especially communications and combat field feeding). Transfer of unit missions from the AC to the Reserve Component (artillery, engineer, helicopter, and support forces) will free up spaces as well as modernize the reserves. To help offset the new initiatives, some AC requirements will be eliminated as a result of AOE designs and selected military support forces will be reduced through elimination, contracting of the support functions, or conversion to civilian spaces.

LID AUGMENTATION

Chairman GOLDWATER. Is adequate light infantry division augmentation provided for in the Army's program?

General WICKHAM. The fiscal year 1985-91 Sustainability Analysis indicated that there are sufficient LID augmentation units in the Army Program for any regional contingency. In a global scenario, the light infantry divisions would share with other divisions the shortages in combat, combat support and combat service support units. Our overall sustainability has improved significantly through our ongoing force structure and logistics initiatives.

LID TACTICAL MOBILITY

Chairman GOLDWATER. What is the tactical mobility of the light infantry division?

General WICKHAM. The division is 100% tactically mobile with the infantry units moving on foot and the remainder of the division moving in organic aircraft and trucks. Additionally, in a surge effort the utility helicopters in the two combat aviation companies can airlift the assault elements of two infantry battalions and the 5 ton trucks of the supply and transportation battalion can move the assault elements of another infantry battalion. Each infantry battalion commander also can move one of his companies rapidly using his organic HMMWVs—High Mobility Multipurpose Wheeled Vehicles.

LIGHT DIVISION SPECIAL TRAINING

Chairman GOLDWATER. What special training will be provided to those assigned to the light infantry units?

General WICKHAM. The Army has developed a unique training strategy for light infantry units which produces highly motivated, physically fit, self-disciplined soldiers capable of bold, independent, and decisive action. The training concentrates on the critical individual and unit skills necessary for survival in combat.

A Light Leaders Course (LLC) teaches leaders how to train through rigorous, hands-on practice. All leaders, team level and above, attend the course.

A Light Fighters Course is taught at home station by the leaders in light divisions. The course is designed to train individuals and small units in advanced light infantry tactics.

To enhance individual tactical and technical competence of leaders, greater numbers of Ranger quotas are being allocated to light divisions. Additionally, significant

numbers of officers and noncommissioned officers assigned to light infantry units are already Ranger qualified. Many leadership positions require Ranger training.

To supplement the individual training programs, unit training will be tough, physical, realistic and demanding. Focusing on wartime contingencies, light infantry units will train as combined arms teams. Stealth, surprise and initiative are the key ingredients to light infantry operations. Off post deployments, joint training exercises, and participation in cold weather, jungle, desert and amphibious training will be commonplace.

It is important to note that the training strategy is constructed around the building of units under the Cohesion Operational Readiness and Training (COHORT) system. Newly activated and converting light infantry division battalions will be formed via the battalion COHORT system. To date, four battalions have been activated in the 7th ID. The objective is to stabilize soldiers and leaders to allow the horizontal and vertical bonding from initial entry training through deployment to combat. Additionally, light infantry One Station Unit Training has increased emphasis on light infantry skills.

There are other initiatives that support the training strategy of light divisions. Contractor support and increased civilian hire will free soldiers from routine base operations missions, allowing more time to train. Publications are also being modified. Proponent schools are reviewing all training literature to insure alignment with the operational and organizational concepts for light infantry units.

This multi-faceted training strategy does in fact build elite units that are better trained, better led and better disciplined. The key is well-executed, small unit training.

ANTI-ARMOR CAPABILITIES

Chairman GOLDWATER. What anti-armor capabilities will the light infantry divisions have?

General WICKHAM. As I have stated, the light infantry division has more anti-armor weapon systems per hundred soldiers than the heavy divisions. There are 44 TOWS and 162 Dragons in the infantry battalions. There are also 29 highly capable AH-1 Attack Helicopters in the combat aviation brigade.

QUESTIONS SUBMITTED BY SENATOR STROM THURMOND

LIGHT INFANTRY ENVIRONMENT

Senator THURMOND. Describe both the tactical and strategical environment in which the light infantry would be employed? What goals do we have in those situations?

General WICKHAM. The light infantry division is designed primarily for operations in low intensity conflict. In many areas of the world, as pre-crisis and low intensity actions are effectively met, the probability of mid to high intensity action will be significantly reduced. The flexibility and deterrent capability of the light infantry division is optimized by designing it light enough to deploy with speed and agility in a pre-crisis or low intensity setting, yet keeping it robust or flexible enough to remain survivable and useful when employed in a mid to high intensity scenario. The design provides inherent utility for peacekeeping operations, security assistance, battalion thru division size combat operations in jungle, mountain and desert terrain, and joint combined exercises (U.S. presence). The basic goal in this design is to defuze a crisis prior to hostilities, and provide a capable, coherent combat force, early, should hostilities ensue.

FIREPOWER—LIGHT INFANTRY DIVISION

Senator THURMOND. The light division seems to lack fire power, given its organic weapons. How can it be effective?

General WICKHAM. The light infantry division has a significant amount of firepower. Indirect fires are provided by 105mm howitzers (54 weapons), 60mm mortars (54 weapons), and 81mm mortars (36 weapons). Direct fires are provided by the individual soldier's weapons (pistols, rifles) and crew served weapons (machine guns, rocket launchers, missiles and air defense systems). Armed helicopters provide additional missile, rocket and gun systems. What is significant in the organizational design is the percentage of foxhole strength—that is, the portion of the whole which is expected to engage the enemy, on foot. The percentage is twice that of the design of the standard infantry division. Our analysis has shown this light infantry divi-

sion to be effective in the role for which it was designed. Depending on the situation, augmentation to the division will provide any additional fire support considered appropriate. Such augmentation and tailoring is customary in organizing forces for combat.

LIGHT INFANTRY DIVISION SURVIVABILITY

Senator THURMOND. It has been suggested that the Light Infantry Division (LID) will be used in low intensity conflict against an unsophisticated enemy. Yet even in the Middle East, Latin America and the Third World there has been heavy acquisition of light and heavy armor, jets and field guns. How will the LID survive?

General WICKHAM. Our analyses have specifically addressed the issue of survivability. In a low intensity scenario we wargamed the light infantry division against the type of threat force you describe. The findings concluded that the LID performed significantly better than our other standard infantry divisions because of the capability to deploy rapidly, organize a coherent combat structure quickly, and conduct combat operations in the early days of the situation. In other words, rapid deployability is the key combat multiplier. In addition to the overall effectiveness due to rapid deployability, our analyses show that the type of terrain found in many scenarios limits the effectiveness of armor while enhancing dismounted infantry tactical operations. The tactics emphasized by LIDs are those which utilize darkness and restricted terrain to best advantage. The design and training for LIDs provides an effective, survivable force.

MOBILITY—LIGHT INFANTRY DIVISION

Senator THURMOND. If we are successful in deploying the LID to the field, it seems it lacks sufficient organic mobility to move around the theater. Please explain.

General WICKHAM. The division is 100% tactically mobile (the infantry units on foot, and the remainder in organic aircraft and trucks). Two Combat Aviation Companies provide a total of 30 utility helicopters to simultaneously lift the assault elements of at least one infantry battalion. The divisional Transportation Motor Transport Company of the Supply and Transportation Battalion can move the assault elements of another infantry battalion in a single lift using organic 5 ton trucks. Additionally, using the 35 HMMWV's assigned to each infantry battalion, the battalion commander has the flexibility to rapidly move a company.

LID ACTIVATIONS

Senator THURMOND. The committee is concerned that since you intend to activate 5 light divisions within existing manpower end strengths, it may be short-changing already scarce support forces. Please explain.

Secretary MARSH. We are activating two light divisions (6ID, 10MT) and converting two infantry divisions (7ID, 25ID) to light design in the Active Component (AC) within existing manpower end strengths. The fifth light division (29ID) is being activated in the Reserve Component (RC) by combining existing separate infantry brigades within a programed increase of RC end strength. Emerging technology and new unit designs allow us to accomplish more with constrained resources. From fiscal year 1986 to fiscal year 1991, combat service support forces are programed to grow by 18,000 spaces within the total force to improve their profile within the force structure. The Army's total force structure is balanced to satisfy our responsibilities across the spectrum of conflict—terrorism to general war. With the AirLand battle concept, the corps commander has the ability to fight the battle through the timely application of corps level resources—to include support forces. Light infantry divisions, by design, require reduced amounts of support (fuel, bullets, maintenance); however, mission, enemy, troops and terrain frame a unit's absolute support force requirements. Alternatives to U.S. force structure, (Host Nation Support, Contingency contracts, coalition support) are planned to augment Army support forces when and where appropriate.

NATIONAL GUARD ROUNDOUT BRIGADE

Senator THURMOND. Under your present scheme for the activation of the 10th Mountain Division, you intend to use a roundout brigade from the National Guard. This seems incompatible with the quick reaction force you are trying to create.

Secretary MARSH. Both the 10th Mountain Division and the 6th Infantry Division will be rounded out with a reserve component brigade. By rounding-out, the Army is able to meet force structure requirements and remain within a level, affordable

active component end strength. With adequate resourcing, a reserve component brigade can be prepared to mobilize and deploy with its active division. We have had successful experience in rounding out other divisions thru the development of a close active/reserve working relationship. With emphasis on full time support personnel, priority for resources, training periods, school allocations and exercises we will instill the confidence and competence in reserve component unit members which is appropriate to such a force.

LIGHT INFANTRY DIVISION ACTIVATIONS

Senator THURMOND. Explain your rationale for activating 5 Light Infantry Divisions rather than a lesser number.

Secretary MARSH. An analysis conducted in 1984 defined the 1994 Planning Force. The Planning Force is the optimum Army force structure which would have reasonable assurance of accomplishing assigned missions. The resultant 1994 Planning Force included a requirement for light infantry divisions.

The methodology used is embodied in a design model. The model focuses on a single year, considers the selected multi-theater strategy (scenario) and designs the deployable Army in terms of theater-level combat forces, combat support forces and combat service support forces. The model also consists of mathematical parameters. The output provides structured divisional forces in terms of type divisions.

Because of resource constraints and assessment of associated risks, the Army has struck a balance between heavy and light forces. The Army is executing the program needed to field only five (5) light infantry divisions. The balanced force mix makes best use of scarce Army resources with an acceptable level of risk.

SUSTAINABILITY—LIGHT INFANTRY DIVISION

Senator THURMOND. What is the sustainability of an unsupported Light Infantry Division? What are your plans to support the division? Is that realistic in view of the contraints on airlift.

General WICKHAM. The light infantry division is designed to operate up to 48 hours without external support. Other divisions generally operate approximately 72 hours without external support. Resupply to the light infantry division will be air delivered (5 day increments) until a sea line of communication (LOC) is established. Because the division is lighter with less personnel, vehicles and heavy weapons than the current infantry division, sustainability requirements in terms of tonnages and sorties/ships are reduced.

7TH DIVISION EXERCISE

Senator THURMOND. I understand you are planning to exercise the 7th Light Infantry Division. What do you expect to learn from these exercises? Won't these lessons learned have some overall affect on the design of the Divisions?

General WICKHAM. The Army has begun a comprehensive program to certify the operational concept for the light infantry division. This certification will be conducted during fiscal year 1985–86 and will consist of both field and non-field analysis. The field portion will consist of field exercises at the battalion, brigade, and division level; the non-field portion will include wargames, review of previous studies, and an historical documents search. As the Army reviews the certification results, recommendations may be made to alter the designs of some of the division's organizations while remaining within the personnel and sortie limits imposed upon the design.

BALANCED FORCE LIFT

Senator THURMOND. In a recent article in the Army Magazine, Retired General William E. DePuy extolls the virtue of the Light Infantry Division, calling it a "unique, indispensable element of a balanced fighting force. In its preferred environment, it is the maneuver force of choice." Yet it seems to me that except in very limited situations, the division must be employed as a part of a total balanced force to survive and be effective and that takes us right back to the problems of lift. How do you lift that "balanced force" into place?

General WICKHAM. To project a "balanced force" requires a combination of airlift for light and easily deployable forces, sealift to move heavy mechanized equipment, and if the threat demands, prepositioning of selected warfighting material and equipment. The interface between airlift, sealift, and prepositioning is driven by the scenario or specific contingency. Lift requirements are directly related to the threat. One fact is certain, given constrained budgets, our nation's military will continue to

face strategic lift and prepositioning shortfalls. Thus, in planning to meet our nation's strategic military objectives, the light infantry division is one means of improving our overall deterrent posture through proper force design to provide improved strategic utility. The light infantry division allows rapid, early deployment of a division size force with only a minimal (500 C-141 sorties) lift impact. This light force properly employed could defuse a potential conflict early or deter a possible aggressive act that could be escalatory. In areas where the threat is more extreme, the light division will be one segment of a "balanced force" designed to meet and counter the enemy. For example, in NATO or SWA, the light infantry division can perform missions that free up heavier forces to face more intense and concentrated enemy firepower. The net result of putting light infantry divisions in the Army's force structure is improved strategic flexibility, enhanced military utility, and rapid deployability.

LOW INTENSITY CONFLICT FORCES

Senator THURMOND. The implication of your report is that we have a significant gap in our force structure to meet the needs of the "low intensity" conflict. However, it seems we already have such capability in existing Army Airborne/Air Assault Divisions and Marine Corps units. Why not tailor existing units to these missions?

General WICKHAM. While they have utility for low intensity conflict, the airborne and air assault divisions are designed for mid to high intensity conflict. Accordingly, they are equipped with a large number of anti-tank weapons systems and have excellent tactical mobility with organic helicopter and truck assets. Each of these divisions requires a significantly greater number of C141B sorties for deployment. The airborne and air assault divisions are best employed as part of a contingency corps operation in conjunction with heavy forces against threat tank and mechanized forces. On the other hand, the light infantry division is optimized for rapid deployability in less than 500 C141B sorties and has the minimum essential number of heavy anti-tank weapons to defeat the expected low intensity threat.

10TH MOUNTAIN DIVISION

Senator THURMOND. Since the 10th Mountain Division is the only completely new activated division and the most expensive out of the five light infantry divisions you intend to field, why not defer its activation, pending validation of the conversions underway?

General WICKHAM. The 10th Mountain Division is a key element of the total light infantry division initiative. Analysis of optional Army force structure resulted in a requirement for light infantry divisions. Our force program is a balance of resource constraints and risk, and provides five light infantry divisions. The total balanced force makes best use of scarce Army resources within an acceptable level of risk, and due to the five light infantry divisions, provides a real increase in our deterrent posture toward the postulated scenarios. To provide the National Command Authority the widest range of response options to a crisis, the complete light infantry division capability is required immediately. To delay the 10th Mountain Division would be to accommodate an unacceptable level of risk. As with all five light infantry divisions, the structure of the 10th Mountain Division will be modified and improved as necessary design changes are approved.

LIGHT INFANTRY DIVISION SUSTAINABILITY

Senator THURMOND. I understand that the light infantry division can only operate in a low intensity conflict for 48 hours without augmentation. With such limited sustainability, won't the division be extremely vulnerable? If the only solution is augmentation, won't we again be faced with the problem of limited lift capability?

General WICKHAM. The light infantry division design objective calls for 48 hours of self sustainability when employed in a low intensity conflict. Initially, the light infantry division will receive air delivered resupply (five day increments) which will continue until a sea line of communication (LOC) is established. The requirement for external augmentation is not unique to the light infantry division. Other divisions generally operate approximately 72 hours without external support. The type, size and deployment requirements of augmentation units are scenario dependent based on the factors of Mission, Enemy, Troops, Terrain, Time, (METT-T). Lift requirements are reduced as the light infantry division provides the U.S. a capability to deploy a credible force in ⅓ the time, in less than 500 sorties. (Current standard infantry division requires 1,502 sorties over a 18-20 day period). This capability is intended to defuze crises prior to start of hostilities.

CAPITAL COSTS—10TH MOUNTAIN DIVISION TO FORT DRUM

Senator THURMOND. What are the total capital costs associated with deploying the 10th Mountain Division to Fort Drum?

Secretary MARSH. The 10th Mountain Division is being established through resource redistribution within a fixed Army end strength. Because equipment is procured against a total Army Acquisition Objective (AAO), and because no additional dollars for equipment are being sought as a result of Light Infantry Division (LID) activation, there are no equipment capital costs associated with 10th Mountain Division deployment. By the same token, in the absence of the LID initiative, family housing being constructed in the Fort Drum area would have been constructed elsewhere to meet a worldwide Army shortfall. This housing is therefore not a LID associated capital cost. There will be some facilities construction capital cost required; for example, new unit headquarters and maintenance facilities, and the utilities grid upon which this new construction is built. Additionally the Army is pursuing initiatives to reduce potential government capital costs by using section 801 housing construction and State of New York regional authority construction to minimize MCA/AFH construction expenditures.

Between fiscal year 1986 and fiscal year 1989 the Army will spend about $275M for facilities construction chargeable to 10th Mountain Division deployment.

FORT DRUM FACILITIES FINANCING

Senator THURMOND. Please explain the method and schedule for financing the necessary Fort Drum facilities? To what extent do you expect support from the State of New York or other agencies?

Secretary MARSH. The Army has a construction plan for barracks, maintenance shops, and administrative facilities timed to match the division's deployment schedule. Assuming Congress approves our current family housing and utilities requests for Fort Drum soon, we will have the division fully organized at Fort Drum by the end of fiscal year 1989.

The Army has structured an innovative plan to combine both construction and facility maintenance under a single contract which uses a long-term financing strategy to pay for the project. Contracting with one company for the entire project permits efficiencies, economies of scale, reduced overhead, and lower life cycle costs. This financing strategy, by linking construction with long-term facility maintenance, creates an environment that the government presently cannot duplicate and provides additional controls on construction.

The State of New York has taken two major initiatives to support the establishment of the 10th Mountain Division at Fort Drum. First, New York is in the process of financing and building 600 housing units for possible use of families relocating to Fort Drum. Second, New York has established a regional authority to raise revenues through bond issuance for the construction of sewage treatment and solid waste incineration facilities. These regional authority initiatives, coupled with private financing of a heating plant, are expected to save the Army over $50M in construction costs.

SELECTION OF FORT DRUM

Senator THURMOND. What were the principal considerations for selecting Fort Drum? What other bases were considered and why were they discarded?

Secretary MARSH. Fort Drum best met the set of operational, environmental, and economic considerations for stationing a new light infantry division. Operational factors included strategic location, displacement of units, weather, training conditions, command and control, facilities, impact on reserve component units and in-place base operations resources. Environmental factors included air, water, biological, demographic, noise, education, medical, safety, transportation and cultural concerns. Economic factors included regional economic activity and costs of facilities to station the new division. Over the one year process to arrive at a stationing decision, many stations were considered. For a variety of reasons (such as saturated electromagnetic spectrum, unsatisfactory competition for training facilities, or poor strategic location) the set of alternatives was narrowed to a final set of options involving use of Alaska, Fort Lewis, Fort Ord, Fort Campbell, Fort Drum and Fort Benning to station elements of the division. Fort Drum best met the stationing criteria and was selected.

FORT DRUM SELECTION

Senator THURMOND. It seems that a principal consideration in choosing an appropriate U.S. base must be its collocation with an air base capable of handling multiple loadings and a steady flow of C-141. Fort Drum doesn't have that capability. How do you intend to solve that problem.

General WICKHAM. One of the principal considerations in the stationing decision was distance to a port of embarkation (POE). A strategic lift airfield is located about 50 miles from Fort Drum (Griffiss AFB). This is considered to be satisfactory. Contingency plans will address and make provision for transportation of the division elements to the POE. In practice, unit call up and movement to the POE will precede availability of strategic lift. There is ample time and resources to make full use of a steady flow of C-141 aircraft. The 50 mile distance is not a limitation.

FORT DRUM HOUSING

Senator THURMOND. I understand you intend to construct 1400 housing units under the Section 801 build-lease program. How far from post would these houses be located?

Secretary MARSH. The Army is prepared to award a contract for 1400 units of Section 801 housing for Fort Drum. The 801 program was originally authorized in fiscal year 1984 (PL 98-115) and expanded in fiscal year 1985 to include housing to accommodate a major restationing action by the Army (PL 98-401), and specifically the light infantry divisions and Fort Drum by the fiscal year 1985 Continuing Appropriations Act (Section 8109). The Army has conducted a cooperative analysis with New York State and local officials to assure that the construction and ultimate occupancy of these 1,400 units does not overwhelm existing infrastructure such as utilities, schools, health care facilities, etc. We have also integrated into our planning actions that soldiers occupying these houses will be properly supported by the military community.

The required economic analysis of that proposal has been completed and concurred in by the Office of Management and Budget and the build-to-lease housing for Fort Drum is cost effective. That package was provided to the Congress for their 21-day review on May 6.

Until approved by Congress and the contracts executed, the exact location of the houses cannot be released. However, the agreement between the Army and the local Tri-County Council distributes the houses as follows:

600 units in Watertown City, approximately five miles from the Fort Drum maingate. Six construction sites are permitted with 50 to 400 houses per site.

500 units in Jefferson county with distances up to 30 miles from Fort Drum. However, 400 of these 500 units can be in Watertown City at 5 miles from Fort Drum. Seven construction sites are permitted with 50 to 400 houses per site.

150 units in Lewis County and 150 units in St. Lawrence County. These are also within 30 miles of Fort Drum and a minimum of 50 units per site is required.

FORT DRUM TRAINING

Senator THURMOND. It seems that many of the contingencies you are planning for are in "hot" climates of the world including Middle East and the Third World. Doesn't the relatively "cold" European climate of Fort Drum seem an inappropriate place to train?

General WICKHAM. To date no specific contingency missions have been identified for the 10th Mountain Division (Light Infantry). Contingency missions exist for both cold and warm climates. If the 10th Mountain Division (Light Infantry) is assigned a warm climate contingency mission, it will present a training challenge but not one that cannot be overcome. Fort Drum has a climate range which will provide opportunities for warm weather training in the summer and cold weather training in winter

FORT DRUM RESERVE COMPONENT TRAINING

Senator THURMOND. It has been estimated that 65,000 soldiers from the Reserve Components will train at Fort Drum annually. Won't this interfere with the training requirements of the 10th Division? What other interference might be expected from the Active Component units that have previously trained at Fort Drum?

Secretary MARSH. Reserve Component units are scheduled into Fort Drum training areas at times which minimize conflict with Active Component units. With the exception of Annual Training periods, Reserve Component training normally occurs on weekends during periods of low Active Component use. Additionally, Reserve

Component training will provide some excellent opportunities for combined arms training and to exercise combat support and combat service support elements. Previous Active Component use of Fort Drum has been primarily for cold weather training which may be curtailed because barracks are limited as a result of the rehabilitation program. Other training areas, Alaska and Camp McCoy, Wisconsin, could be used, if necessary.

FORT DRUM SUPPORT FACILITIES

Senator THURMOND. What improvements or replacements are being considered for support facilities such as your post exchange, commissary and hospital clinics?

Secretary MARSH. Our plans for health care facilities include a troop medical clinic (approx. 17,000 SF), a dental clinic (38 chairs) and an ambulatory health care center (approx. 53,500 SF) which is a series of clinics. We have concluded that sufficient bed space is available in the civilian hospitals and we therefore do not require a new hospital.

We now have under design a post exchange/commissary complex that will provide these facilities with non-appropriated funding as an integral unit. Additional support facilities that will be required and are in our planning include: clothing sales store for uniform items, post office, chapels, recreation center, bowling, youth activities center, shopette/laundromat, library/education center etc.

FACILITIES SCHEDULE

Senator THURMOND. My staff has been briefed that medical care and the commissary are pacing items for deployment. What is your schedule on these facilities?

Secretary MARSH. The pacing factor for deployment is availability of family housing. Essential to our schedules is completion of the first 1,400 units of section 801 build-to-lease housing now being considered by the Congress and the 800 units of Army Family Housing included in the President's fiscal year 1986 budget, plus the requested approval for use of prior year funds for construction of utilities in fiscal year 1986. While the commissary and medical facilities are essential, they have not become pacing factors for deployment. Our most optimistic schedule permits a construction start of these facilities in the summer of 1986 with completion dates that coincide with troop and family arrival requirements.

BASING PLANS

Senator THURMOND. Your basing decision, in part, has been based on unity of command. Under your current deployment plans, how many brigades will be located at Fort Drum?

General WICKHAM. Fort Drum has been selected for stationing the 10th Mountain Division. This includes the entire active component portion of the division (two infantry brigades). Because of a temporary shortfall in facilities, one active component infantry brigade will be stationed on an interim basis at Fort Benning, Georgia. When the necessary facilities are completed (estimated 1988-1989) the brigade will permanently relocate to Fort Drum. The reserve component portion of the division (one infantry brigade) is based in New York and because of the close proximity to Fort Drum will be able to establish a close working relationship with the active portion of the division.

RESERVE UNIT TRAINING

Senator THURMOND. Several times it has been mentioned that joint training was a factor in the selection of Fort Drum. Do you really believe you can have meaningful training with Reserve Units at Fort Drum during their 2 weeks annual training?

Secretary MARSH. One of the major factors in selection of the round out brigade for the 10 Mountain Division was the close proximity of the units to Fort Drum. These units of the 27th Brigade, New York Army National Guard, are all within convenient driving time of Fort Drum. This situation allows for the fostering of close professional working relationships from the outset and should pay significant dividends in readiness and combat capability in the near term. The association between the active and reserve components will take place throughout the year as training and operations plans are developed, and individual and small unit training takes place. The National Guard units will conduct multiple unit training assemblies on Fort Drum on selected weekends and also on communications exercises involving the entire division. These programs will result in a capability to integrate the total division training program during the annual training period.

MANEUVER AREA—FORT DRUM

Senator THURMOND. The maneuver area of 65,000 acres seems barely adequate to meet your needs, especially when you have to compete with other units. Does Fort Drum give you adequate maneuver area?

General WICKHAM. Yes, Fort Drum provides adequate maneuver area. The Training and Doctrine Command has estimated that a light infantry division needs 50,000 acres to conduct training. Initially only one Active Component brigade will be assigned at Fort Drum. Even in the long-term, the 10th Mountain Division (Light Infantry) will not exceed two Active Component brigades and one Round-Out brigade.

ADDITIONAL TRAINING—FORT DRUM

Senator THURMOND. What is the likelihood that you will be able to use the Adirondacks, White and Green Mountains for additional training?

General WICKHAM. There is a high probability that areas of the Adirondacks, White, and Green Mountains can be used, especially for small units. Some unsolicited offers for training opportunities have been received by the 10th Mountain Division (Light Infantry). The training would have to be limited to events that were not disruptive to other users.

QUESTIONS SUBMITTED BY SENATOR JOHN WARNER

OPERATIONAL LIMITATIONS—LIGHT INFANTRY DIVISIONS

Senator WARNER. What are the operational limitations of the Light Infantry Division?

General WICKHAM. The Light Infantry Division is designed for employment in low intensity conflict. The organizational structure is optimized for rapid deployment to such a crisis area as an effective, coherent combat force. For that mission the division is well suited. The division also has utility in other situations and hence offers flexibility for operational employment. In these other situations the division is limited in that certain augmentation will be necessary to broaden the functional capability of the division. For example, if a significant armor threat is to be encountered, additional antiarmor capability would be provided from corps assets. If the division is expected to operate over a broad front, additional transportation resources would likewise be provided. This type of force augmentation is not unique to the light infantry division; a standard part of all operations planning addresses the best task organization of forces to accomplish the mission.

INFANTRY COMBAT LOAD

Senator WARNER. In a recent article in the *New York Times* about the Army's new Light Infantry Division, one young sergeant was quoted as saying, "The Light Division only means they have taken away our vehicles and now we have to hump that stuff." I have seen tables which indicate that infantry soldiers going into combat may be carrying anywhere between 65 to 100 pounds. This doesn't seem to say much for tactical mobility—even foot mobility. Are there any R&D efforts underway to lighten the load the individual soldier has to carry on his back?

General WICKHAM. An Integrated Individual Fighting System (IIFS) Program Joint Working Group has been established to reduce the load the individual soldier must carry through the systematic application of both technology and leadership. The result is a large number of programs which will contribute to lightening the load the soldier must carry. The Extended Cold Weather Clothing System (ECWCS), to be fielded soon, is an example of the application of new lighter weight materials. This system, using components made of polytetrafluoroethylene, will weigh at least 5 pounds (21%) less than the current standard cold weather clothing system. A new Individual Tactical Load Bearing Vest (ITLBV) is being developed to position the fighting load for better accessibility and load distribution and less stress and encumbrance. This vest will permit commanders to tailor for each mission a minimum load configuration for each soldier based on the threat and mission requirements. The goal is to get the individual soldier's load for a 72 hour mission down to approximately fifty (50) pounds including clothing, weapon, and basic load.

LIGHT INFANTRY AS AIRBORNE/ELITE

Senator WARNER. Since the Light Infantry Division is rapidly deployable, but has no "force entry" capability, should we consider making these divisions airborne? Wouldn't this help you also in your efforts to make them more elite?

General WICKHAM. During contingency operations, light infantry units would normally be employed as part of an Army corps or joint task force. The controlling headquarters would provide a forced entry capability in the form of airborne, ranger, or USMC units. Consequently there is no need for the light infantry division to have an organic forced entry capability.

In other circumstances, light infantry forces can attain the effect of forced entry by surprise gained through rapid deployability and insertion. Since the light infantry division can be deployed on very short notice, it can frequently be inserted by strategic airland methods before threat elements have time to react.

GAMP CAPABILITY

Senator WARNER. The Light Infantry Division does not have organic heavy artillery and very limited anti-tank firepower. If one of our light infantry divisions is deployed on a contingency mission in 500 sorties or less, the supporting "plug-in" units would more than likely not be there in the very early stages of the conflict. For that reason, it seems wise to consider developing the Guided Anti-Armor Mortar Projectile (GAMP). Mortars are organic to the Light Infantry Division and will be available. The additional tank-killing capability the GAMP would provide therefore, seems worth the effort. What is the Army's plan for the GAMP?

General WICKHAM. The Army terminated the GAMP program last year. The Light Infantry Division has been carefully designed to contain an adequate amount of anti-tank firepower for its normal missions. It will be further enhanced in this capability with the addition of the Advanced Anti-Tank Weapons System-Medium. In those cases where the Light Infantry Division needs more anti-tank weapons, "plug-in" augmentation units will be deployed to arrive in the early stages of the conflict.

QUESTIONS SUBMITTED BY SENATOR DAN QUAYLE

FUTURE LIGHT DIVISIONS SYSTEMS

Senator QUAYLE. Although existing equipment is sufficient to deploy light divisions now, might the effectiveness of the light division increase with future supply of improved preferred munitions? Has the Army studied what preferred munitions the light division might find useful in the late 1980s and 1990s? What specific systems should the United States be developing to meet future light division needs?

General WICKHAM. The Light Infantry Division by design is equipped with standard weapons systems. These weapons systems will use a selection of munitions available Army-wide. As the Army inventory of munitions and weapons systems is improved to meet new requirements or capitalize on new technology the Light Infantry Division will benefit from the improvements. Concerning specific systems, the Army is considering the longer range British light field gun (105mm); this weapon will be tested for possible fielding in light forces. Further, an improved medium-range light antitank weapon is required. The current Dragon system is too bulky, slow (time of flight and rate of fire), exposed (high profile) and lacks sufficient range. The Army is renewing its efforts to field an effective, man-portable anti-armor system as soon as possible.

PREPARATIONS FOR LIGHT DIVISION DEPLOYMENT

Senator QUAYLE. What specific battlefield preparations would be desirable in Central Europe to increase the effectiveness of possible light division deployment? How much is being spent on these preparations by Germany, the United States, and other NATO nations per year? How much yet needs to be spent?

General WICKHAM. Our analyses show that the Light Infantry Division is most effective in Central Europe when it is employed in what we call close terrain and when adequate time is available for battlefield preparation. This preparation includes constructing barriers and obstacles to advancing enemy forces, and preparing defensive positions for our forces. Included in such preparations would also be the laying of minefields. These preparations are accomplished as units occupy their initial positions in wartime, and the extent of preparation depends on the time available from occupation to contact with the enemy. Unit equipment includes pioneer

tools for this task. Support forces, for example non-divisional engineer units, are dedicated to support this task. Given that battlefield preparation does not actually begin until the Light Infantry Division deploys to its wartime position, an estimate of spending is not available.

ANTI-TANK WEAPONS

Senator QUAYLE. What new tactics or R&D efforts is the Army pursuing to supply the light division with effective anti-tank weapons whose use would not reveal the locations of the users as much as current weapons and tactics?

General WICKHAM. The Army is pursuing a new Anti-Tank Weapon System—Medium (AAWS-M) which will allow the gunner a much higher degree of survivability due to its small firing signature and its ability to be fired from within buildings and other enclosed positions.

QUESTIONS SUBMITTED BY SENATOR JOHN GLENN

LIGHT DIVISION DEVELOPMENT

Senator GLENN. With the decision to establish the new light divisions, the Army will have five generic types of light forces—air assault, airborne, motorized, standard infantry and the new light infantry divisions. Are the older concepts of combat which led to creation of those divisions still valid?

General WICKHAM. The Army employs all of its forces according to AirLand battle doctrine which is the Army's central warfighting method. Each of these five types of divisions has an operational concept which describes how that organization fulfills its unique assigned missions. Recently, due to AirLand battle initiatives and resource constraints, the Army has modernized all of its division operational concepts and force designs. As a result, the air assault, airborne, motorized, standard infantry, and light infantry divisions are in consonance with the Army's basic warfighting concept and are transitioning to new organizations with modernized equipment.

AIR ASSAULT DIVISION RATIONALE

Senator GLENN. Is the air assault type of division which developed because of the conditions we encountered in Vietnam still valid, for example? Is it necessary in light of the much greater concentration of helicopter forces in all types of divisions that was the case prior to Vietnam?

General WICKHAM. The Army's air assault division is the only Army division that possesses organic aviation assets necessary to provide outstanding tactical mobility as well as massive aerial anti-tank firepower. The air assault division design includes four attack helicopter battalions (versus one attack helicopter battalion for most other divisions) and two utility helicopter battalions and one medium helicopter battalion (versus two utility helicopter companies for most other divisions.) The air assault division is extremely effective over the wide expanses of Southwest Asia and also has great utility in NATO and in low intensity conflict scenarios.

The Air assault division has been redesigned from its Vietnam era organization and will convert to its modernized structure in fiscal year 1987.

TRADITIONAL INFANTRY DIVISION RATIONALE

Senator GLENN. What is the rationale for maintaining the traditional infantry division after we create the new light infantry divisions? What can the traditional infantry division do that a light infantry division cannot do?

General WICKHAM. The traditional infantry division includes one or more tank and mechanized infantry battalions, medium artillery, and a large number of trucks for tactical mobility. It is designed for high intensity conflict in support of forward deployed heavy forces. In contrast, the light infantry division is intended primarily for low intensity conflict and has no tanks or armored personnel carriers, has light artillery, and a minimum essential number of tactical vehicles. In the context of the overall Army mission, the light infantry division is a rapidly deployable force intended to halt escalation by demonstrating US resolve in the early stages of a conflict. The traditional infantry division requires mobilization time but projects a capability for sustained combat alongside heavy forces in high intensity conflict.

FORCES ORGANIZATION

Senator GLENN. Do we organize our forces specifically for geographic regions or are they based on expected threat situations?

Secretary MARSH. Forces are designed to respond to a range of threat scenarios and possible environmental conditions. These standardized forces are then tailored for employment based on specific JCS tasking to support national strategy. Units are augmented with appropriate combat support and combat service support to ensure mission accomplishment. Only a small portion of our deploying force is regionally oriented, e.g., special operations forces.

LIGHT DIVISION FLEXIBILITY

Senator GLENN. General Vuono, as I understand it, you just came from the Army's Combined Arms Center and Fort Leavenworth where you spent considerable time evaluating the Light Infantry Division. Often the question is asked how well the light infantry division will do in combat in Europe. Generally the response is it will be used in that terrain which is ill-suited to armored forces, thereby freeing those forces for use in the "North German Plain." What I am interested in is the impact this has on the overall flexibility of force application for the theater commander after the opening days of battle. We won't be able to stay in restrictive terrain forever. What penalty do we incur in limited flexibility by increasing the percentage of light forces in Europe throughout the campaign, not just in the opening days of combat? Can the light division keep up in combined arms operations envisioned in AirLand Battle, for example?

General VUONO. I believe that rather than reduced flexibility in Europe, we gain in flexibility with light forces—and in fact the percentage of light forces changes little at any point in the campaign. In the early days of a crisis or war, rapidly deployable light forces would move to Europe by air while heavier forces deploy by sea. Depending on specific arrival dates in a given scenario, there would be little fluctuation in the percentage of heavy to other forces. The program force for NATO is about 66 percent heavy divisions. Light infantry divisions, as with other types of divisions, add to and complement the efforts of the corps commander. The LID expands the capabilities at the operational level by providing additional flexibility in execution of the AirLand battle. A LID can be employed to allow the release of heavy forces to be used for maneuver, to hold terrain and assist the corps commander's deep attack efforts, or to conduct operations in the rear area. Additionally, the LID requires less infrastructure to sustain its operations than do heavier forces.

Terrain in northern Germany has its unique characteristics. While much of the area is excellent armor country, the growth of urban areas (e.g. Hamburg conurbation), coupled with the existing network of small villages in fact restricts and compartments armor force movement. I believe that the light infantry division, properly augmented, could make a significant contribution. The greater flexibility of the division and the ability to move it with intratheater lift to critical points in the battle area make it an excellent candidate for flank employment.

LID-STRATEGIC RESERVE

Senator GLENN. General Vuono, the Army has indicated that light divisions will serve as strategic reserve in Europe. Is this the kind of strategic reserve we need in Europe? Isn't a force well suited to difficult terrain at a disadvantage if the theater commander needs reinforcements in the North?

General VUONO. If a light division is designated as a strategic reserve in Europe, it would provide a force that could be moved rapidly around the battlefield by helicopter or wheeled vehicles for relatively short distances—and by fixed wing intratheater lift if the distances warranted that lift mode. If the light division were to be employed in close or urban terrain, it is ideally suited.

The point should be made that with a light infantry division available to consider as the strategic reserve, it could free up a heavy division for other commitments.

EQUIPPING LIGHT DIVISIONS

Senator GLENN. Do we have sufficient support forces today to support more divisions, since we are creating these new divisions without any increase in force structure?

General WICKHAM. The new divisions (6ID, 10MT) in the Active Component (AC) are being formed within existing active end-strength while the 29ID is being activated in the Reserve Component (RC) by combining two existing separate infantry brigades within a programmed increase of RC end strength. Emerging technology and

new unit designs allow us to accomplish more with constrained resources. From fiscal year 1986 to fiscal year 1991, combat service support forces are programmed to grow by 18,000 spaces within the total force to improve their profile within the force structure. The Army's total force structure is balanced to satisfy our responsibilities across the spectrum of conflict—terrorism to general war. Within the Airland Battle concept, the corps commander has the ability to fight the battle through the timely application of corps level resources—to include support forces. Alternatives to U.S. force structure, (Host Nation Support, Contingency contracts, coalition support) are planned to augment Army support forces when and where appropriate.

Senator GLENN. If we have to transport these support forces to support combat beyond 48 hours, what is the transportability advantage of light divisions?

General WICKHAM. Follow-on logistics support as well as corps-level combat service support units are required when any division, light or heavy, deploys for sustained combat. What we have gained with the light infantry division is a rapidly deployable, capable force which can move into a crisis location before the onset of actual hostilities and preclude the need for further commitment of U.S. forces.

Senator GLENN. General Vuono, last year this committee asked the Army to assess its plans for equipping light forces. Does the Army have in hand today, or on the drawing boards today, the types of equipment it needs to outfit its light forces? Will we meet all our equipment requirements for light forces by 1990? What items of equipment are not in hand or not on the drawing boards with funded plans behind them?

General VUONO. The fiscal year 1986 budget reflected the Army's overall procurement requirements. The equipment requirements for the light infantry divisions were included in the budget request. The light infantry division is equipped with standard items common throughout the Army. Items under research and development generally have numerous applications and are not normally unique to one unit. To date, the Army is not procuring any items of equipment specifically for the light infantry division.

Senator GLENN. General Vuono, this year the Congress cancelled the Army's plans for fast attack vehicles and refurbished Sheridan tanks for the 9th Motorized Infantry Division. The primary reasons we cancelled the programs was the lack of comprehensive plans for equipping light forces. What are your plans now for the 9th? What new items of equipment for the 9th are you planning which are unique to the 9th and which do you think will be common to all light divisions?

General VUONO. The 9th Infantry Division will continue its transition into a motorized division in 1986. The Army is analyzing several alternatives, using existing equipment, to provide a near term warfighting capability within the division until its objective equipment is fielded. The fast attack vehicle was the only item of equipment which was unique to the 9th Infantry Division (Motorized). Several standard Army items, such as the Chaparral and Mortars, however, were modified for motorized division use. On April 7, 1985 the Army submitted a report to the Congress on the Army's Long Range Plans for Fielding Light Divisions which includes a detailed list of equipment items common to all light divisions. This list includes systems such as the VOLCANO mine dispenser, the 5.56mm Carbine and a light version of TACFIRE.

Chairman GOLDWATER. The committee is adjourned.

[Whereupon, at 11:05 a.m., the committee adjourned, subject to the call of the Chair.]

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